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Brigadier Stanley Crump – An Underappreciated New Zealand Military Logistics Commander

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Abstract

This thesis describes the impact which Brigadier Stanley Crump had on the success of New Zealand's military forces in Greece and North Africa during the Second World War. Brigadier Crump was the Commander of the New Zealand Army Service Corps, responsible for all tactical-level logistics units within the 2nd (New Zealand) Division. This thesis asks how Crump contributed to the success (or otherwise) of the New Zealand military forces, and what challenges he faced doing so. Despite the criticality of logistics to military campaigns, the focus of New Zealand's military history has tended towards analysing the tactical commanders, such as Freyberg and Kippenberger. No matter how brilliant a tactician a commander might be, any plan is doomed without logistics. Crump was able to draw on considerable experience from the First World War and the inter-war period to command the New Zealand Army Service Corps to become a vital cog in the machine of the 2nd (New Zealand) Division. Without his efforts, countless New Zealand lives may have been lost, and the battles for North Africa may have been much more difficult for the Allies.

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Contents

INTRODUCTION – An Under Appreciated Commander	1
CHAPTER ONE – Background to Another War	12
CHAPTER TWO – Mobilisation	22
CHAPTER THREE – Defeat in Greece	34
CHAPTER FOUR – Calamities Continue	53
CHAPTER FIVE – The Quartermasters Decide the Battle	74
CONCLUSION – Success Despite Great Challenges	103
BIBLIOGRAPHY	110

Table of Figures

Figure 1: 'Freyberg Holds Staff Conference in Wellington'	2
Figure 2: 'On their Way to Burnham'	17
Figure 3: 'The Army Service Corps in Training'	18
Figure 4: First Echelon Ships	25
Figure 5: Mytchett Place, Headquarters where Crump worked each day.....	30
Figure 6: New Zealand Division ORBAT at beginning of Greek Campaign.....	35
Figure 7: New Zealand Division Habitual Groupings.....	36
Figure 8: Network Diagram of Crump in Greece.....	38
Figure 9: New Zealand Dispositions, March 1941.....	42
Figure 10: Aliakmon Line, April 1941	43
Figure 11: Withdrawal and Evacuation, April 1941	46
Figure 12: A Soldier from Ammunition Company renders a truck useless before abandoning it in Greece, April 1941	50
Figure 13: Colonel Crump Escorts PM Peter Fraser on Parade, May 1941.....	51
Figure 14: Colonel Crump Escorts PM Peter Fraser to inspect troops on parade, May 1941	52
Figure 15: The Battle Area - Operation Crusader	60
Figure 16: The Approach March, 15-18 November 1941	61
Figure 17: New Zealand Division 19-21 November.....	62
Figure 18: Advance of 4 and 6 Brigades, 23-29 November 1941.....	63
Figure 19: Rommel's Dash to the Frontier, 24 November	63
Figure 20: Rommel Returns to the Tobruk Front, 27 November	65
Figure 21: Convoy Under Shell Fire, Sidi Rezegh, Peter McIntyre, 1942	69
Figure 22: Dispositions on night of 26 June 1942	79
Figure 23: El Alamein, July 1942	80
Figure 24: Three Ton Lorry recaptured by New Zealand Division, Tobruk, December 1941,	82
Figure 25: Petrol Dumps burning in Egypt, photo taken by Sir John White, 15 July 1942	84
Figure 26: Relative Rates of Effort, Tactics and Logistics	88
Figure 27: Loading Tables, Ammunition Company, October 1942	89
Figure 28: Military Truck over Water-Logged Round, El Alamein, 1942	91
Figure 29: View from top of Halfaya Pass November 1942, photo by H. Paton.....	92
Figure 30: Left Hook at El Agheila	95
Figure 31: Left Hook at Nofilia	96
Figure 32: Left Hook at Mareth	100

Figure 33: 'Donkey Derby' Race, May 1943	101
Figure 34: Brigadier Crump at Grave of Douglas Crump, Italy, 1944	108

INTRODUCTION – An Under Appreciated Commander

You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics.

General Dwight D. Eisenhower, 1945¹

Brigadier Stanley Herbert Crump, CBE, DSO was one of New Zealand's most important military commanders of the Second World War. He has the distinction of being not only the highest-ranking officer who was 'first in and last out' of the European theatre in that war (embarking with the First Echelon, and remaining to command the rear HQ in Italy and England long after hostilities had ceased, outlasting even Lieutenant General Lord Bernard Freyberg, VC) but also of being the only New Zealand officer to remain continuously in his position of command at either Brigade or Divisional level throughout the entire war.

As Freyberg himself said, 'Modern armies require machines, not men, to counter them' writing as early as 1940 that 'the Allies have just been out-fought on the Continent by a large, fast-moving mechanised striking force supported by a large Air Force... the Western Desert is even more suited for this class of warfare than the fields of Flanders.'² It was Brigadier Crump, Freyberg's Commander of the Army Service Corps (CRASC³) who provided the machines and vehicles which were able to not only move the fighting troops of the 2nd New Zealand Division throughout Greece, North Africa (including a brief deployment to Syria) and Italy, but also keep them sustained with food, water, ammunition, petrol and all other supplies necessary to equip the force for victory.

However, surprisingly little has been written or analysed about this key officer of New Zealand's war effort. The following photograph from the 29 December 1939 issue of the *New Zealand Herald* shows Freyberg meeting with his initial key appointments from the Division, Brigadier Crump seated at far left. Out of all of Freyberg's key commanders and staff officers in the photo below, Crump remains the only one without even the briefest of Wikipedia entries.

¹ Quoted in Major General Charles R. Hamilton and Lieutenant Colonel Edward K. Woo, 'The Road to Predictive Logistics: Perspectives from the 8th Theatre Sustainment Command', *Army Sustainment*, 4 November 2019, ([The Road to Predictive Logistics: Perspectives from the 8th Theater Sustainment Command | Article | The United States Army](#))

² Memorandum by Major General Freyberg to Prime Minister, 29 July 1940, in '*Documents Relating to New Zealand's Participation in the Second World War, 1949-45: Volume 1*', (Wellington: Historical Publications Branch, Department of Internal Affairs, 1949), p. 344

³ although the New Zealand Army Service Corps was not the 'Royal' NZASC until after the war, the Commander of the ASC was abbreviated to include 'Royal', in line with the British Army, thus 'CRASC'

Figure 1: 'Freyberg Holds Staff Conference in Wellington'⁴



COMMANDER OF DOMINION'S SPECIAL FORCE HOLDS STAFF CONFERENCE IN WELLINGTON
 Major-General B. C. Freyberg, V.C., General Officer Commanding the Dominion Forces Overseas, with senior officers, when they conferred on Tuesday. From left: Lieutenant-Colonel S. H. Crump, Lieutenant-Colonel T. J. King, Lieutenant-Colonel K. L. Stewart, Major-General Freyberg, Major-General J. E. Duigan, Chief of the General Staff, Colonel E. Puttick, Colonel R. Miles, and Lieutenant-Colonel W. G. Stevens.

The lack of scholarship or widely published articles on New Zealand Commanders other than Freyberg is not limited to Brigadier Crump. Whilst Major General Howard Kippenberger has been the welcome subject of recent focus (within the last 20 or 30 years) as a key commander within New Zealand's war effort, he is rare among Freyberg's subordinates to be the subject of serious and in-depth books or articles.⁵ Brigadier Crump's span of command was specific and more limited than his superior's (naturally), but the importance of organising divisional logistics was so vital that if he had failed, the entire Division would have failed. Flawed tactical plans can be overcome either by sheer willpower of subordinate commanders or else innovation and initiative to save the battle. Flawed logistics cannot be overcome by even the most determined or quick-thinking commander – guns cannot fire without ammunition, trucks and tanks cannot drive without petrol, and soldiers cannot march without food. Because of this, some authors, such as Martin van Creveld and Major General Julian Thompson, put the importance of logistics ahead of all other supporting aspects of warfare.⁶

Therefore, two questions ought to be asked to illuminate Brigadier Crump's contribution to New Zealand's war effort: First, how did Brigadier Crump contribute to the success (or otherwise) of

⁴ 'Commander of Dominion's Special Force Holds Staff Conference in Wellington', *New Zealand Herald* (Auckland), 39 December 1939, p. 9

⁵ See Glyn Harper, *Kippenberger: An Inspired New Zealand Commander*, (Auckland: HarperCollins, 2005)

⁶ Martin L. Van Creveld, *Supplying War: Logistics from Wallenstein to Patton*, (Cambridge, New York: Cambridge University Press, 1995), p. 3, Julian Thompson, *The Lifeblood of War: Logistics in Armed Conflict*, (London: Brassey's, 1994), p. xvi

the 2nd New Zealand Division in the Second World War? Second, what challenges did Brigadier Crump face in commanding the New Zealand Army Service Corps to support the Division? Answering these two broad questions will explain the extent to which Brigadier Crump met the challenge of mobile and mechanised warfare as identified by Freyberg in 1940.

There is no shortage of primary material to draw from in order in answering the two questions of this thesis. War diaries, including Freyberg's war diary held at the Queen Elizabeth II Army Museum (largely written by his Military Aide, Sir John White), and other unit war diaries held at Archives New Zealand, especially those of the New Zealand Army Service Corps (NZASC) units, chronicle the war and have some details on Crump's decisions and command of the NZASC.

Some official histories have been written on certain NZASC units, notably the 4th and 6th Reserve Mechanical Transport Companies, the Divisional Petrol Company and the Supply Company.⁷ Of further utility, official histories of various campaigns describe the context and logistic requirements of the key battles throughout the war. There is also a volume written by Major General Bill Stevens, titled *Problems of 2 NZEF*, which sheds some light on the challenges that Brigadier Crump had to overcome.⁸

Other primary sources used for this thesis include Brigadier Crump's personal file held by New Zealand Defence Archives, other correspondence home from senior New Zealand officers (especially Crump's good friend, Bill Gentry) and Crump's own nephews, memoirs and oral histories from NZASC soldiers, and historical photographs and maps. Papers Past has many articles on Brigadier Crump and his service during the war, but they are largely descriptions of his appointment, awards, and his comings and goings on leave, and offer little in the way of detailed description on how he commanded the ASC, or to what effect. The QEII Army Museum has also been helpful through providing training publications of NZASC units, as well as the Sir John White version of the General Officer Commanding's Diary, which is more extensive than the copy held by Archives New Zealand.

Whilst there has been minimal focus on Crump by modern military historians (or other key commanders within the 2nd NZEF), the record is not silent. Julia Millen wrote *Salute to Service: A History of the Royal New Zealand Corps of Transport and its Predecessors, 1860-1996* in 1997.⁹ This

⁷ see Jim Henderson, *4th and 6th Reserve Mechanical Transport Companies*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1954), A.L. Kidson, *Petrol Company*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1961), and P.W. Bates, *Supply Company*, (Wellington: Historical Publications Branch, Department of Internal Affairs 1955)

⁸ see Major General W.G. Stevens, *Problems of 2 NZEF*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1958)

⁹ see Julia Millen, *Salute to Service: a History of the Royal New Zealand Corps of Transport and its Predecessors, 1860-1996*, (Wellington: Victoria University Press, 1997)

book was published at the time of the demise of the Royal New Zealand Corps of Transport (RNZCT) as it joined with the Royal New Zealand Army Ordnance Corps (RNZAOC) and Royal New Zealand Electrical and Mechanical Engineers (RNZEME) to form the Royal New Zealand Army Logistic Regiment (RNZALR), The Duke of York's Own in 1996.¹⁰

The purpose of Millen's book is to tell the rich story of over 130 years of service by all members of the RNZCT, RNZASC, NZASC and earlier predecessors. Of relevance to Brigadier Crump are the mentions and brief descriptions of his service in the First World War, his inter-war service, his tenure as Commander of the NZASC (CRASC) in the Second World War and his time in temporary command of 'Jayforce', New Zealand's occupation force in Japan. He is a naturally a prominent figure in this book, not least because of his extensive service across such important periods, but also the fond recollections that the author retells from many other veterans who served with or under him. The book's foreword is written by Lieutenant General Sir Leonard Thornton, former New Zealand Chief of Defence Staff (and Crump's fellow Second World War veteran), who observed the following about the criticality of logistics:

No military force can function properly unless it has a supply system able to meet all contingencies and demands... Supply is not just a matter of rations and camp ovens. It embraces the whole concept of mobility and of good housekeeping on a huge scale. It is also a major contributor to the morale of the fighting soldier.¹¹

The purpose of Millen's book was not to critically analyse New Zealand's logistics, but rather tell the stories of the officers and soldiers who served. She draws from extensive research and primary sources, especially for the Second World War years. Of note, she was able to utilise a private collection of letters held by Brigadier Crump's nephew (Mr D. Crump). She also draws extensively from Brigadier Crump's personal file held by Defence Archives, Wellington. The book has many anecdotes, including fond memories of 'the father of the Corps', as he is later described in relation to the RNZASC. However, the book only somewhat superficially details how the NZASC was organised to support the 2nd New Zealand Division throughout the various campaigns, and the challenges that Brigadier Crump faced are not dealt with at length. These challenges were primarily

¹⁰ The NZ Army Service Corps (NZASC), which became the Royal NZASC (RNZASC) in 1948 was the main predecessor to the RNZCT, which came into existence in 1979. Accompanying the disbandment of the RNZASC and establishment of the RNZCT, responsibility for supply was transferred to the Royal New Zealand Army Ordnance Corps (RNZAOC), with the RNZCT retaining responsibility for transport and catering. Of note, Brigadier Crump's NZASC in the Second World War was responsible for transport, supply and catering of the 2nd (New Zealand) Div.

¹¹ (late) Lieutenant General Sir Leonard Thornton, in Millen, *Salute to Service*, foreword, p. 10

related to enemy actions, difficulties posed by the terrain, requirements of the fighting forces, and the limits of the Allied operational logistic systems in each theatre.

When it comes to analysing the importance of robust logistics within warfare, a hugely influential work is Martin van Creveld's treatise, *Supplying War: Logistics from Wallenstein to Patton*.¹² This book is considered a classic amongst military logisticians, as it fills the gap left by civilian historians' previous lack of attention on the role of logistics. Tactics and strategy have no shortage of history and analysis written about them, whereas logistics is all too often neglected. Observing this issue, van Creveld states in his introduction:

Clearly this will not do. Instead, the present study will ask the fundamental questions: what were the logistic factors limiting an army's operations? What arrangements were made to move it and keep it supplied while moving? How did these arrangements affect the course of the campaign, both as planned and as carried out? In case of failure, could it have been done?¹³

These questions are essentially the same or along the same lines as the two questions that this thesis seeks to answer, but at different levels – van Creveld looks at the higher operational and strategic levels of various campaigns. He focusses on wars and campaigns between 1805 and 1944, in particular analysing the logistics of Napoleon Bonaparte, the wars of German unification, the von Schlieffen plan of the First World War, Operation *Barbarossa* and the Second World War German failure in the Soviet Union, Rommel's difficulties in North Africa and Allied sustainment following lodgement in Normandy.

Whilst neither Brigadier Crump nor the 2nd (New Zealand) Division of the Second World War are mentioned by Van Creveld as he analyses the challenges of North Africa from Rommel's perspective, the central role of logistics in enabling success is a vital argument. Of particular interest is the analysis of Crump's opposition in North Africa – any assessment of Crump's command of the NZASC to enable the defeat of Rommel will only be possible due to the wider context which van Creveld illustrates. Of special note was van Creveld's observation regarding the Second World War and North Africa:

In the annals of military history the campaigns waged in the Western Desert are often said to occupy a unique place, and nowhere is this more true than in the field of supply. By and large, the story of logistics is concerned with the gradual emancipation

¹² see Martin Van Creveld, *Supplying War*

¹³ Van Creveld, *Supplying War*, p. 3

of armies from the need to depend on local supplies... Operating in the desert, neither the British nor their German opponents had the slightest hope of finding anything useful but camel dung.¹⁴

Van Creveld himself draws from the earlier classic work by Jomini, *The Art of War*, the first analyst of military art to attempt to define logistics, which he described as “the practical art of moving armies”, which includes “providing for the successive arrival of convoys of supplies” and “establishing and organising... lines of supplies”¹⁵. There is little else of use to this thesis in what Jomini wrote in 1838 regarding military logistics, particularly when it comes to analysing the logistics provided by a mid-twentieth century commander of mechanised forces to support mobile warfare in a desert. However, it is sufficient to note from Jomini’s classic work that serious analysts of strategy and tactics do not neglect the enabling function of logistics, and that the successes of New Zealand’s commanders such as Generals Freyberg and Kippenberger could not have occurred without the service of professional and competent logisticians such as Brigadier Crump.

Very much drawing from and following on from *Supplying War*, Major General Julian Thompson (a retired officer of the Royal Marines, who notably commanded the 3rd Commando Brigade to success in the Falklands War) wrote *The Lifeblood of War: Logistics in Armed Conflict* in 1991, initiated with the intention to carry on from where van Creveld finished in 1944. This work then developed into a similar analysis of various campaigns throughout history to illustrate how the problem of supplying forces has been tackled over the centuries. Thompson wryly observes in his introduction that “I have no reason to believe that logistics will ever have much military sex-appeal, except to serious soldiers, but this book is written in the hope that I am wrong.”¹⁶ Aside from this very accurate observation on the regrettable subordination of logistics to tactics and strategy by most observers of war and military history, Thompson’s work is a rich analysis of the principles of war and logistics, which he illustrates through analyses of various campaigns from antiquity to modernity. Most of the book focusses on post-Second World War campaigns so as not to risk repeating van Creveld’s work. He devotes one chapter to the Second World War, dealing with North Africa, Italy and Burma. As with *Supplying War*, the role of the 2nd New Zealand Division’s Commander of its ASC is too low-level to rate a mention, but Thompson’s history of these campaigns in North Africa and Italy, and the role that logistics played in Allied success and Axis defeat has been helpful to providing context to Brigadier Crump’s specific actions.

¹⁴ Van Creveld, *Supplying War*, p. 182

¹⁵ Antoine Henri Jomini, *The Art of War*, (West Point, NY: US Military Academy, 1862), retrieved from Project Gutenberg: <https://www.gutenberg.org/files/13549/13549-h/13549-h.htm> on 28 September 2021, p. 255

¹⁶ Thompson, *The Lifeblood of War*, p. xvi

Supplying War and *The Lifeblood of War* are not the only histories of military logistics that can provide useful context to the importance of Brigadier Crump's command of logistics in the Second World War. The success of logistics in the desert conditions of North Africa can draw natural comparisons to the Gulf Wars, notably the First Gulf War as described by Lieutenant General (US Army retired) William Pagonis' book *Moving Mountains: Lessons in Leadership and Logistics from the Gulf War*. Pagonis observed the importance of studying and applying lessons from the history of military logistics

I'm convinced, for example, that our side knew more about Alexander the Great's approach to logistics, and also about his principles of leadership, than Saddam Hussein's lieutenants did. We benefitted, Saddam and the Iraqi Army did not.¹⁷

Perhaps rather than needing to look back 3000 years to Alexander, Pagonis could have also looked back only 50 years to observe Allied Logistics in North Africa in similar conditions to learn more modern applications. Amongst the many lessons that Pagonis observes throughout his account from the mobilisation, deployment, desert conditions, distances to be covered, application of industry and the sheer volume of supplies needed to sustain the huge mechanised forces with complex and modern munitions, he also concurs with Van Creveld and Thompson that "Logistics is traditionally an unglamorous and underappreciated activity."¹⁸ He then quotes Rommel, (showing that he did, after all, cast his eye towards more recent history) and his unwillingness to subordinate his strategy to the limitation of logistics:

[He] was asked by the German Chief of Staff how he planned to supply and feed the two additional panzer corps that he was then demanding from Berlin, for an offensive that few in Berlin wanted him to mount. "That's quite immaterial to me", Rommel replied coolly. "That's your pigeon."¹⁹

In fact, Rommel's observations of the lack of military logistics provided to him by his quartermasters in North Africa provide a vivid contrast to Brigadier Crump's successes. As recorded in *The Rommel Papers*, edited by Liddel-Hart, Rommel makes the following somewhat acerbic comments about his own logisticians:

The reason for giving up the pursuit is almost always the quartermaster's growing difficulty in spanning the lengthened supply routes with his available transport. As the

¹⁷ William G. Pagonis and Jeffrey L. Cruikshank, *Moving Mountains: Lessons in Leadership and Logistics from the Gulf War*, (Boston: Harvard Business School Press, 1992), p. x

¹⁸ Pagonis and Cruikshank, *Moving Mountains*, p. x

¹⁹ Pagonis and Cruikshank, *Moving Mountains*, p. x

commander usually pays great attention to his quartermaster and allows the latter's estimate of the supply possibilities to determine his strategic plan, it has become the habit for quartermaster staffs to complain at every difficulty, instead of getting on with the job of using their powers of improvisation, which indeed are frequently nil.²⁰

Far from agreeing with the blame he levelled at his logisticians, Van Creveld concluded the following about Rommel's belated realisation that his (alleged) tactical superiority would not be enough to win the campaign:

Given that... the capacity of the Libyan ports was so small, the distances to be mastered so vast; it seems clear that, for all Rommel's tactical brilliance, the problem of supplying an axis force for an advance into the Middle East was insoluble. Under these circumstances, Hitler's original decision to send a force to defend a limited area in North Africa was correct.²¹

Not to be outdone by American logistics commanders such as Pagonis in promulgating their accounts of how they won the Gulf War, the British Army has also published a more detailed account of military logistics supporting a mechanised division in the desert in 1990: *Gulf Logistics: Blackadder's War* edited by Major General Martin White details how the 1(UK) Armoured Division was sustained in detail by the British Army logisticians.²² The comparisons which can be drawn to how Brigadier Crump sustained the 2nd New Zealand Division only 50 years earlier are numerous, and Major General White himself notes at the very start of the book the direct applicability of the lessons observed from official publications detailing the administrative history of the 21st Army Group from the Second World War. White's book details the widest extent of how British Army logistics was structured for the First Gulf War, including areas which Brigadier Crump was responsible for in the same manner only a generation earlier, such as transport and movements, supply, and the so-called 'small cogs' of catering and pioneer operations.

Whilst Van Creveld, Thompson and the American and British logistics commanders of the Gulf War provide helpful accounts of logistics at the operational and tactical levels (the levels most applicable to Brigadier Crump's efforts with the 2nd New Zealand Division), there are a number of works detailing logistics at the strategic level, which also inform this thesis in regards to the wider context within which Brigadier Crump was operating. These works include *For Want of a Nail* by Kenneth Macksey, *A Soldier Supporting Soldiers* by Joseph Heiser and *The Big L: American Logistics in*

²⁰ Basil Henry Liddell Hart, ed., *The Rommel Papers*, (New York: Da Capo Press, 1982), p. 96

²¹ Van Creveld, *Supplying War*, p. 201

²² See M. S. White, ed., *Gulf Logistics: Blackadder's War*, (London: Brassey's, 1995)

World War II edited by Alan Gropman.²³ There is also a great utility that arises from studying Brigadier Crump and the levels of war that he was operating in – somewhat unique to him, whilst he was in command at the tactical level (ie, the Division was the tactical formation manoeuvring against the Axis forces), he and his units were a key component within the operational spheres (that is to say, the Division was a major force within the North African, Greek and Italian campaigns, especially North Africa). Finally, being a key commander with the 2nd New Zealand Expeditionary Force (NZEF), Crump was also operating very much within a strategic level, needing to draw from New Zealand as a support base, as far from the theatre of war as one could get. Therefore, studying how Crump commanded his logistics was impacted by considerations and requirements at all three levels of war, and so these works about 'higher level' logistics play a key part in informing the contexts within which Crump operated.

In regards to literature on the 2nd New Zealand Division in the Second World War, there is no shortage to read of details about the tactics and strategy, but there is precious little in terms of logistics, and even less on Brigadier Crump's contribution. For example, Ian McGibbon's book *New Zealand and the Second World War: The People, the Battles and the Legacy* is a high-level account by one of New Zealand's foremost military historians on the land, air and sea campaigns that New Zealand participated in. He describes the military campaign in North Africa in broad terms:

Geography dictated that the campaign be fought along a narrow coastal strip of the continent. The terrain and soft sand placed severe limits upon the operation of vehicles any distance to the south... Opportunities for outflanking always existed... The second main influence on the campaign was the difficulty of bringing in supplies in an area in which distances were great and road limited generally to a single main route along the coast. Sustaining an army in the desert demanded large supplies of petrol, ammunition, water and food, all of which had to be brought in from outside. The further an army operated from its supply point the more difficult became its operations, since everything had to be trucked up to the front.²⁴

Whilst McGibbon goes into limited detail about the role of the railways in North Africa and the role New Zealand railway sappers had in overcoming the tyrannies of terrain and distance, it is not within the scope of his book to delve into such fine detail as the NZASC under Crump, and so he does

²³ see Kenneth Macksey, *For Want of a Nail: the Impact on War of Logistics and Communications*, (London: Brassey's, 1989), Joseph M. Heiser, *A Soldier Supporting Soldiers*, (Washington: Center of Military History, 1991), and Alan L. Gropman *The Big 'L': American Logistics in World War II*, (Washington, DC: National Defense University Press, 1997)

²⁴ I. C. McGibbon, *New Zealand and the Second World War*, (Auckland: Hodder Moa Beckett, 2004), p. 87

not rate a mention within this work. McGibbon goes on to record and describe the series of ‘left hooks’ that the 2nd New Zealand Division performed as part of the Eighth Army’s defeat of Rommel, manoeuvres which naturally required the transport and sustainment of infantry as well as the flow of supplies to all combat and combat support forces.²⁵ How Brigadier Crump achieved this is the main subject of this thesis.

Grant Crawley however, delved into some detail in his entry about Crump written in *The Oxford Companion to New Zealand Military History*, edited by McGibbon. Crawley remarks that Crump:

[C]ombined energy, resourcefulness, and an uncompromising approach with considerable organisational and command skills. Nowhere were these attributes more in evidence than during the New Zealand Division’s long and difficult left hook at Mareth, its successful support being one of the most impressive feats of the North African campaign.²⁶

This thesis does not cover Crump’s command throughout the entire Second World War, stopping at the conclusion of the campaign in North Africa, prior to the campaign in Italy. Limitations on the length of this thesis are the prime drivers of this. Furthermore, the height of Crump’s duties was no greater than during the task of sustaining complex mobile and armoured warfare across the vast distances of Egypt, Libya and Tunisia – and especially when in these campaigns the 2nd New Zealand Division was such a vital cog of the Allied war machine. Although Crump continued to play a vital role throughout the Italian campaign (and indeed, during the demobilisation and return to New Zealand, being one of the very last officers to return home in 1946), and whilst Crump went on to higher command as Officer Commanding ‘JayForce’ on two separate occasions before finally retiring in 1949, a full exposition of his command throughout the entire war and beyond would require more than this Masters-level thesis.

Overall, this thesis explores how Brigadier Crump contributed to the success (or otherwise) of the 2nd New Zealand Division in North Africa and Greece during the Second World War, and what challenges he overcame doing so. These questions must be answered with a continuous reflection of the importance of logistics as part of the sinews of war which are mandatory for any form of tactical success. As part of this critical analysis, it must be questioned if a lack of logistics, as was Brigadier

²⁵ In modern military terminology, ‘Combat’ forces are regarded to be either Infantry or Armour, whilst ‘Combat Support’ forces are regarded to be Artillery, Engineers and Signals. Logistics and Medical units comprise ‘Combat Service Support’.

²⁶ Ian McGibbon and Paul William Goldstone, eds., *The Oxford Companion to New Zealand Military History*, (Auckland: Oxford University Press, 2000), p. 132

Crump's duty to provide, was what hindered the division on any occasion where it did not succeed, notably in Greece and Crete.

This thesis is structured to answer these questions in five chapters, divided chronologically. Chapter One will analyse Crump's background and how his service between the war affected matters. Chapter Two will analyse mobilisation of his Army Service Corps and its voyage to North Africa. Chapter Three will examine the disaster in Greece, including asking the question to what extent was Crump responsible for that setback? Chapters Four and Five will then examine the remainder of the North Africa campaign, including the notable successes of mobile warfare, in support of which Crump needed to play a vital role. This was arguably the division's most significant campaign in the Second World War due to the critical role that it played amongst the Allied Forces. Each chapter will describe what the logistic requirements were, how Crump commanded the NZASC to meet them, and what challenges he overcame (or occasionally did not, as it may be).

The importance of this work is that Crump and the NZASC have not been subject to in-depth analysis so far in the military history of New Zealand. If logistics are as vital to military operations as argued by Thompson, van Creveld and others, then this study will illuminate either how successes on the battlefield were enabled by Crump, or else it will show to what extent setbacks suffered by New Zealand's forces in the Second World War were due to want of resources.

CHAPTER ONE – Background to Another War

My logisticians are a humourless lot. They know if my campaign fails, they are the first ones I will slay.

Alexander the Great (attributed)

The background of Brigadier Crump prior to his exceptional service in the Second World War helps us to understand how he was able to command the NZASC to such effect. Crump's first overseas service in the First World War was in the Middle East, commanding an ASC company of the New Zealand Mounted Rifles Brigade – locations such as Egypt and Palestine being the very same places he returned to with the next generation of soldiers. Following that, Crump continued his service in the Regular Force of the New Zealand Army, serving as Officer Commanding of the Permanent Army Service Corps (PASC) for the entire inter-war period. Such a background was almost unrivalled by other New Zealand Army commanders, many of whom were First World War veterans, but very few continued into Regular Force service between the wars.

Not long after hostilities broke out in July 1914, Stanley Crump attested into the New Zealand Territorial Force (TF) in December 1914, commissioning as a Second Lieutenant into No. 2 Company, Army Service Corps (ASC), then part of Auckland Military District.¹ Records list him as a medical student prior to attestation into the TF, but when later attesting into the New Zealand Expeditionary Force (NZEF), he was described as having been a builder's assistant living in Auckland.² Crump embarked as part of the 8th reinforcements at the end of 1915, initially employed as the Requisitioning Officer, New Zealand Rifles Brigade in Egypt until April 1916 and then in France until September 1916. Upon promotion to Lieutenant, he was then placed in charge of the New Zealand Mounted Rifles Brigade Supply and Transport from October 1916 until August 1917. The New Zealand Mounted Rifles Brigade was at this time serving in Egypt and Palestine. He was promoted to (temporary) captain in January 1917, and in July he was appointed as the senior ASC officer in the NZEF in Egypt, a position he held until October of that year. Serving in the Middle East, he held various positions in the New Zealand Mounted Rifles Brigade and the Mounted ANZAC Divisional Train, culminating in promotion to (temporary) major in May 1919, as the senior Supply Officer of the Mounted ANZAC Divisional Train. He returned to New Zealand in August 1919, being one of the

¹ 'New Zealand Expeditionary Force: Attestation of Stanley Herbert Crump' dated 19 July 1915, in R24097215 S.H. Crump Personal File (ANZ)

² 'Officers' (Territorial Force) Appointment to Commission: Crump, Stanley Herbert' dated 9 December 1914, in R24055558 'Personal File, Stanley Herbert Crump, NZDF' (ANZ)

last officers to return and fulfilling a wide range of duties following the armistice in administrative and logistic functions of the Division's return to Australian and New Zealand.³

Crump was very highly regarded for his service in the Mounted Rifles Brigade, and when applying for his post-war commission in the Regular Force, a glowing reference was given by Major General Edward Chaytor, the New Zealand Officer who commanded the NZEF in Egypt, who said that he was "very energetic and reliable; done splendidly [sic]. Since appointed to the NZMR Bde."⁴ To be elevated from the ASC company supporting the brigade to the headquarters of the formation was a clear indication of Crump's diligence and reliability. As a brigade staff officer in charge of supplies and transport, Crump needed to understand both the tactical plan as well as the wider logistic situation in order to provide food, water and ammunition in very hostile terrain.

Chaytor was not the only senior New Zealand officer from Egypt impressed with Crump's service in that theatre – after returning home in August 1919, he was struck off the strength of the NZEF but quickly applied for full time duties. Supporting his application for commission into the New Zealand Staff Corps were two letters written by Brigadier General William Meldrum (Commander of the New Zealand Mounted Rifles Brigade) and Lieutenant Colonel John McCarroll (Commander of the Auckland Mounted Rifles), extolling Crump's virtues. Meldrum wrote glowingly of Crump's service, describing how he was responsible for all supplies reaching the New Zealand Mounted Rifles Brigade and that he could support Crump's application without hesitation. He wrote that:

[Crump's] task throughout the campaign was a most arduous one. The country was very badly roaded [sic] and often long marches by day or night were made. During the dry season the heat and dust, and during the wet season the rain and mud added to the difficulties. In spite of all difficulties the brigade never failed for supplies owing to the energy of Major Crump, his handling of his team and men, and his never failing resourcefulness, which helped largely in keeping up the efficiency of the brigade as a fighting unit. He proved himself a most efficient ASC officer. Without any reservations I can strongly recommend him for services in the ASC.⁵

Lieutenant Colonel McCarroll wrote the following reference for Crump:⁶

³ 'A Brief Biography of Brigadier S.H. Crump, prepared by WOII E.C. Grayland, Archives Section, Army HQ' dated 15 February 1945, in R20110060 2NZEF – Biography of Brigadier S.H. Crump (ANZ)

⁴ 'Confidential Report: Note by Maj Gen Chaytor' dated 26 April 1917, in R24055558 'Personal File, Stanley Herbert Crump, NZDF' (ANZ)

⁵ 'Letter from Brigadier General W. Meldrum, Comd NZMR to OC Auckland Military District: Major S.H. Crump, NZASC', dated 18 September 1919, in R24055558 'Personal File, Stanley Herbert Crump, NZDF' (ANZ)

⁶ 'Letter from Lt Col McCarroll, NZMR: Reference Major Crump's application for an appointment in the NZ Staff Corps', dated 18 September 1919, in R24055558 'Personal File, Stanley Herbert Crump, NZDF' (ANZ)

He showed conspicuous ability in the carrying out of his work in the A.S.C. often under extreme difficulties. He is a good disciplinarian having had to deal with natives and our own men. He handled them with tact and sound judgement. With his education and experience I should think he would make an excellent officer in the NZASC and is well qualified for this appointment.

The references from these two senior officers clearly persuaded the relevant authorities to keep Crump employed in a full-time role in the New Zealand Military Forces. He was absorbed into the Reserve of Officers with the rank of captain, but was attached for duty at General Headquarters, working in a variety of roles in charge of the ASC in Trentham as well as working in the disposal of surplus stores. Despite applying in 1919, it was not until May 1923 that Crump (as a captain) was transferred from the Reserve to the Staff Corps as officer in charge of ASC in Wellington.

The establishment of the Permanent Army Service Corps (as opposed to the Army Service Corps which was the far bigger force, employed across the three military districts in the TF) was given a great deal of consideration immediately following the war, particularly by (then) Lieutenant Colonel William Avery in his role as Adjutant-General. The relationships that Crump formed with officers such as Avery (and fellow Regular Force officers such as William Gentry) are notable, as they stood him in excellent stead when 2 NZEF was raised and deployed in 1939. By 1923, Crump was Officer Commanding the PASC, also variously fulfilling the roles of Assistant Quartermaster General, General Headquarters, Director of Supplies and Transport and Deputy Adjutant and Quartermaster General, General HQ.⁷

In fact, Lieutenant Colonel Avery wrote presciently in 1919 regarding the establishment of the NZASC within the permanent forces, that not only was the proposed ASC “desirable to control the valuable mechanical transport equipment which will shortly be to hand”, it was vital to carry out normal peacetime work of providing supply and transport services within the military districts, to carry out the instruction of territorial ASC units, to provide trained and efficient officers “for the more important positions in the ASC on mobilisation” and to ensure “proper care and control of ASC vehicles and equipment.”⁸ The fact that twenty years later the New Zealand ASC was mobilised as part of the 2nd New Zealand Division in exactly this fashion speaks to a strength that Crump was able to draw on – he himself had been fulfilling all the duties as Commander of the ASC for almost the

⁷ Biography of Brigadier S.H. Crump, 1945 (ANZ)

⁸ ‘Minute Avery to General HQ: Formation of Permanent Army Service Corps’ dated 17 October 1919, in R22441964 ‘Staff Enlistment and Conditions of Service – Permanent Army Service Corps – General’, (ANZ)

entire inter-war period and was intimately acquainted with not only the vehicles and equipment of the ASC, but also with the TF officers who became commanders in 2 NZEF.

Crump's inter-war service featured two notable duties for which he was commended at the highest levels. The Hawke's Bay earthquake in 1931 required him to supply a large quantity of army stores and equipment to the stricken areas, regarding which Major General Robert Young observed for his personal file a commendation for Crump "for the efficient manner in which he carried out the instructions given him".⁹ The second notable duty was the appointment of Crump as the Aide de Camp (ADC) to General Sir Alexander Godley for his return visit to New Zealand in 1935. Whilst not particularly arduous, his duties required an attention to detail and forward planning for all things transport and accommodation as Godley visited old comrades from the NZEF and dignitaries around the North Island.¹⁰ General Godley wrote to the Commandant of New Zealand Military Forces the following about Crump and other officers involved in his visit: "[they] have all been most efficient and helpful, and if all your young officers of the Staff Corps are as good as they, I think you are very lucky. No trouble has been too great for them to take for us, and all their arrangements have been admirable."¹¹

Crump's traits and skills had therefore been developed in both war and peace up to this point, including diligence, self-discipline, technical knowledge, resourcefulness and precision in communicating. Although he was highly regarded for these traits and characteristics, as was common in the years following the First World War, promotion was slow to come by. Although Crump passed his examinations for promotion to major in February 1929,¹² it was not until 1937 that he was promoted to that rank.¹³

However, it was not only his personal traits that placed Crump in good stead. The Divisional ASC itself as a unit was not a force raised ex nihilo in 1939. Rather, it was a force that was able to draw on 20 years of technical development and training under New Zealand's Territorial Force system, albeit one that ebbed and flowed with regards to the strength of its units. On the 21 year anniversary of the establishment of the Army Service Corps in 1934, local papers were full of praise for the training and development of the ASC during and since the end of the First World War, Crump

⁹ 'File note: The Hawke's Bay Earthquake, by Major General R. Young' dated 30 March 1935, in R24055558 'Personal File, Stanley Herbert Crump, NZDF' (ANZ)

¹⁰ 'Letter Sir Alexander Godley to Commandant NZ Mil Forces' dated October 1935 in R18527879 'Visit – Sir Alexander Godley' (ANZ)

¹¹ 'Memo N.M. Challies to Lt Col Puttick, dated 14 March 1935, in R24055558 'Personal File, Stanley Herbert Crump, NZDF' (ANZ)

¹² 'Memorandum for Captain S.H. Crump: Examination for Promotion' dated 28 February 1929 in R24055558 'Personal File, Stanley Herbert Crump, NZDF' (ANZ)

¹³ 'Promotion History – S.H. Crump' in R24055558 'Personal File, Stanley Herbert Crump, NZDF' (ANZ)

being a key player.¹⁴ But despite the decades of training and development, it is also striking how vital the horse remained to the NZ ASC even well into the 1930s – as late as the mid-1930s, each military district still had one section dedicated to horse transport and only one section for Motor Transport (MT).¹⁵

But the days of the horse as the primary means for transporting and supplying New Zealand's military forces were numbered. As reported by Major General John Duigan, Commandant of New Zealand Military Forces, in his annual report to Parliament in 1937, "successful transportation in war has always been based on the efficient employment of civil resources. Today the army is dependent on the motor industry for its mobility." Duigan was able to report positively about the trials that New Zealand undertook in 1936 and 1937 to motorise its forces, noting that "the use of motor transport instead of horse-drawn vehicles for all unit transport has been tried out successfully, and will be universally adopted in future."¹⁶

This was not a new observation by any stretch, and New Zealand had been looking to Australia and Britain to see their earlier embrace of modern military technology in the early 1930s. The Australian government embarked on a reorganisation scheme in 1933, particularly looking to reorganise the supply and transport services. Senator Sir George Pearce, Commonwealth Minister of Finance announced in July 1933 that horse transport would be replaced by motor transport companies, although finances did not initially allow a large number of vehicles to be acquired in peace time. Australia then embarked on process of at least drawing up establishments for a fully motorised army, with its permanent Army Service Corps trialling and maintaining a variety of vehicles.¹⁷

Inevitably, New Zealand took a slower journey on military modernisation than Australia. Army Service Corps units maintained their reliance on horse and cart until well into the 1930s, as captured by the *Christchurch Star* photographing members of the ASC in March 1934:

¹⁴ 'The Army Service Corps', *Press* (Christchurch), 29 September 1934, p. 5

¹⁵ 'The Army Service Corps: Important Military Unit', *Press* (Christchurch) 29 September 1934, p. 5

¹⁶ Major General J.E. Duigan, 'Annual Report of the General Officer Commanding New Zealand Military Forces' dated 31 July 1937, R22432062 (ANZ)

¹⁷ 'Defence Forces: Australian Plan – Mechanised Units in Peace and War', *Evening Post* (Wellington), 31 July 1933, p. 8

Figure 2: 'On their Way to Burnham'¹⁸



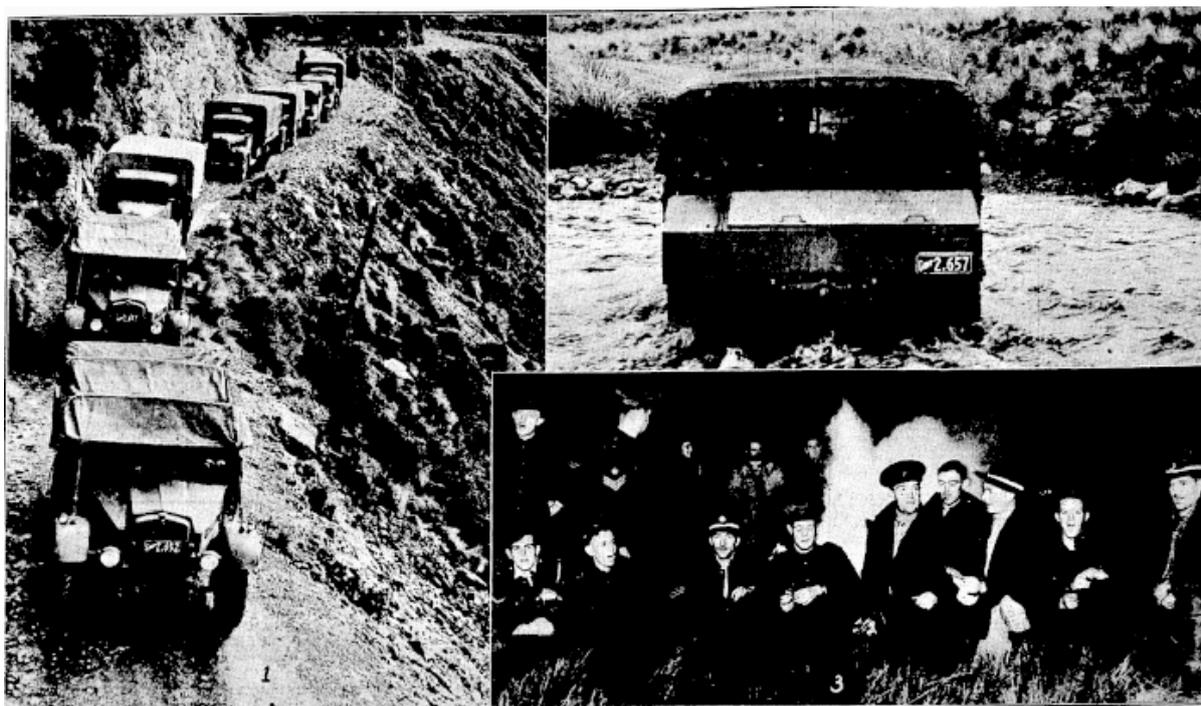
ON THEIR WAY TO BURNHAM.—Members of the Army Service Corps passing through Heathcote on Saturday on the first stage of their journey to Burnham via Evans Pass, Gebbie's Pass and Otahuna.

By 1938, despite the limited number of trucks and lorries physically owned by the New Zealand Military Forces, the TF ASC units were conducting increasingly motorised convoys and drills. For example, August 1938 saw the largest motorised military convoy assembled in the South Island when its TF unit conducted a trek to the West Coast and back, with the grand strength of six lorries, four vans, four cars, three motorcycles and accompanying army kitchens and trailers.¹⁹

¹⁸ 'On their Way to Burnham', *Star* (Christchurch), 5 March 1934, p. 5

¹⁹ 'Army Service Corps: Trek to the West Coast', *Press* (Christchurch) 9 August 1938, p. 4

Figure 3: 'The Army Service Corps in Training'²⁰



THE ARMY SERVICE CORPS IN TRAINING.—The 3rd Composite Company, New Zealand Army Service Corps, held a bivouac at Lees Valley during the week-end. The photographs show:—(1) Some of the new army transport vehicles negotiating a rough section of the road above the Ashley river en route to Lees Valley. (2) A camouflaged truck crossing a ford. The vehicle is painted in brown and green, the colour scheme blending effectively with the landscape. (3) Community singing round the camp fire.

Therefore, despite the cadre of full-time staff being small in 1939 when raising the ASC for the Second World War, Crump was able to draw on these key personnel within each military district who had experience in motorised transport, convoys and the duties required to provide supplies. Crump was intimately involved in configuring the structure of these units throughout the inter-war period, which from the early 1920s he conducted with an eye to utilising motor transport and wheels instead of hooves.²¹

The challenges that Crump faced during the inter-war period in terms of raising and training an Army Service Corps were the same challenges faced by his higher commanders of the wider army amidst the Great Depression. There was a general unwillingness from the government (especially the Labour government from 1935 onwards) to expand the New Zealand Army, controversially identifying better value for money through spending on the Air Force in preference to the Army.²² By the mid-1930s, Crump was now in his late 40s, and recalled in 1947 that: "I thought as head of a

²⁰ 'The Army Service Corps in Training', *Press* (Christchurch), 10 May 1938, p. 16

²¹ Minute Captain S.H. Crump to HQ NZ Military Forces 'Re: Provisional Establishment ASC', dated 16 April 1921, in R22441964 'Staff Enlistment and Conditions of Service – Permanent Army Service Corps', (ANZ)

²² Colonel J. Hargest, 'Air Force Bill', *New Zealand Parliamentary Debates*, vol. 248, 1937, p. 1175

service I was in a dead-end job with no possibility of promotion. One couldn't then appreciate that the service would expand."²³

The raising of the ASC for the Second World War was rather acerbically recalled by Arthur Kidson in the Official History of the Petrol Company of the 2nd New Zealand Division:

It could be expected then, that after World War I, New Zealand authorities would hail the era of the internal combustion engine and dismiss horses from the military scene. But no. In 1919 our Army Service Corps could muster only 20 motor-trucks and cars; while by 1939 this country's total was 86 military motor vehicles of all kinds... In 1930 New Zealand abolished compulsory military training, and whittled down the NZASC from 457 all ranks to 287. By 1939 this arm had dwindled to 168, mostly Territorials, split up among the three military commands. Each of these had its own ASC company – a composite one undertaking all ASC duties and still using horse transport. Thus when World War II broke out, New Zealand had no unit specially formed or trained to supply a modern fighting force.²⁴

The challenges of raising a divisional-ASC from a limited number of men and vehicles were also reported by Supply Company, which was rapidly raised from the skeleton staff of the TF and bolstered by volunteers and new recruits. In 1939, "although the unit's operations were based on motor transport, there were in the camp only ten training vehicles, of which two were artillery tractors. These few trucks were shared with 4 Reserve Mechanical Transport Company."²⁵ These challenges of training a motorised division within New Zealand were not to last long – simply because Crump and his nascent ASC deployed only a short two months after the outbreak of war with Germany.

Crump's duties in terms of raising and deploying the ASC in 1939 were more than drawing up establishments for the units, which at that point in time were to be structured around commodities as per direction from the War Office in London. By now, the public was more than fully engaged with the raising of the 2nd New Zealand Expeditionary Force, and an obvious concern borne out of the experiences from the first NZEF was the nutrition of New Zealand's soldiers. The initial diet of New Zealand's soldiers in the First World War was poor, analysis of New Zealand's military

²³ Letter, S.H. Crump to Adjutant General dated 19 March 1947, 'Superannuation Contributions' in R24055558 'Personal File, Stanley Herbert Crump, NZDF' (ANZ)

²⁴ A.L. Kidson, *Petrol Company*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1961), p. 1

²⁵ P.W. Bates, *Supply Company*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1955), p. 1

food rations at Gallipoli in 1915 showing that soldiers were deficient in vitamin C, and probably other nutrients such as vitamin A, deficiencies which probably caused scurvy and other illnesses in that ill-fated campaign.²⁶ Whilst the nutrition of New Zealanders improved over the course of that war, the memory of poor food lived on.

Amongst the public who maintained memories of discomfort and the lack of nourishing food was the New Zealand Women's Food Value League. Under the leadership of Mrs Lorrimer and Dr Chapman, this league petitioned the New Zealand Minister of Defence to ensure that the food of New Zealand's sons and husbands would be nutritious, launching a campaign in October 1939 for 'food for fitness'. The minister duly complied with their requests, and immediately set up a committee to examine the questions raised, with (then) Colonel S.H. Crump appointed in his role of Quartermaster-General. Crump, along with the director general of medical services and representatives from the health department, Plunket Society and physical fitness instructors met in October 1939 to discuss the matter of nutrition, particularly for the military camps then being set up in haste.²⁷

The Nutrition Committee (as it was named) then requested that the Medical Research Council prepare a report on the diet of the New Zealand Armed Forces, which Crump then had the burden of implementing not just for the mobilisation camps within New Zealand but also for the rest of the war in much more austere conditions. The Medical Research Council duly considered the deliberations of the nutrition committee, and it seems that the initial diet was on a sound footing, with only minor amendments being suggested, such as including an egg at the expense of some meat, and that butter rations be reduced. The council also provided advice on the cooking of vegetables.²⁸ It later became a passion for Crump to maintain the good nutritional health of New Zealand soldiers, no doubt drawing from his own experiences and observations from the First World War, but also under pressure and the watchful eye of the New Zealand public who had their own memories of previous poor-nutrition with disastrous effects.

Overall, Brigadier Crump's background could hardly have been better in terms of formative experiences prior to commanding the 2nd New Zealand Division ASC in North Africa and Europe. It was in fact a return to the very same theatre he had served with distinction in the First World War, and his role as CRASC was not so different to his role as the Officer Commanding the Permanent

²⁶ Nick Wilson et al., 'A Nutritional Analysis of New Zealand Military Food Rations at Gallipoli in 1915: Likely Contribution to Scurvy and Other Nutrient Deficiency Disorders,' *The New Zealand Medical Journal* 126, no. 1373, 19 April 2013

²⁷ 'Health First: Soldiers' Food', *Star* (Auckland), 31 October 1931, p. 8

²⁸ 'Minutes of a Meeting of the Nutrition Committee, New Zealand Medical Research Council, 7 December 1939', in R20960352 'Medical Council – Nutrition 1938-1940' (ANZ)

Army Service Corps. The challenges he faced were entirely to do with the funding and establishment of the New Zealand military forces, especially during the more austere times of the Great Depression, but despite this he still oversaw increasing modernisation and a development from the horse to the truck. Major General Sir Howard Kippenberger recalled the trying circumstances of this time and wrote that whilst it was exceptionally trying to work under such constraints, it was a positive experience from which good officers learnt to deal with adversity and scarce resources:

The period 1930-1938 was probably the most discouraging the New Zealand Army has survived. Those who soldiered on knew that they had no support or sympathy from Government or the great majority of the public... Equipment was never replaced, however worn or useless. The economy axe fell mercilessly on the small Regular Force... This was in 1938, with war clearly imminent. Four colonels who publicly denied a Ministerial statement that all was well were placed at once on the Retired List.

It was a good experience. No one, professional or amateur, who continued to serve throughout that period, could ever be completely discouraged by the disappointments and disasters we were soon to suffer.²⁹

Just like Kippenberger, Crump learnt to make the most of very limited resources. Throughout the inter-war period, Crump needed to be resourceful, diligent and clear, displaying foresight at all times. These duties and traits stood him in excellent stead for the Second World War, as did the relationships he built up with key officers during these decades of service.

²⁹ Major-General Sir Howard Kippenberger K.B.E., C.B., D.S.O., E.D., LL.D. 'The New Zealand Army', *Royal United Services Institution*, no. 102:605, 1957, pp. 71-72

CHAPTER TWO – Mobilisation

Logistics is... as vital to military success as daily food is to daily work.

Captain Alfred Thayer Mahan, USN, 1912¹

Stanley Crump's experience between the wars ensured that he was well prepared leading up to his deployment. Having commanded a company in the Middle East for the New Zealand Mounted Rifles Brigade, and then being officer commanding of the Permanent NZASC throughout the entire war period, Crump was now required to put into practice all that he had learned. Within just a few months of the declaration of war in 1939, Crump oversaw the mobilisation of his units in New Zealand and their embarkation and journey to the Middle East, at which location further training and equipping was planned before the entire division could be employed as a professional fighting force. As it turns out, the concentration of this division in the Middle East could not come about for over 12 months, and Crump was required to give 'special service' in the United Kingdom under the threat of invasion by the Germans. Crump's units continued to gain experience, as he did too, whilst he also had the chance to deepen his key relationship with Freyberg, a man who knew very well the importance of maintaining and sustaining a fighting force with robust logistics. By the time Crump and his units were finally able to concentrate in the Middle East in February 1941, both he and his units were amongst the most experienced veterans of the entire division, a fact that served them invaluable in the coming campaigns. This chapter will detail that although the real fighting began in Greece in April 1941, once again Crump's experiences before then were to see him and his soldiers be amongst the best prepared of the entire expeditionary force. The challenges were numerous, particularly raising a divisional ASC from scratch, training a new generation of soldiers and not knowing whether the fighting would be in the United Kingdom, the Middle East or elsewhere.

Key to the mobilisation of the Special Service Force (until it became the Second New Zealand Expeditionary Force) was the appointment of a suitable General Officer Commanding (GOC). It was evident that an excellent candidate who could make use of Crump's knowledge and experience was (then) Major General Bernard Freyberg, VC. New Zealand-raised, Freyberg served with the highest distinction in the First World War, earning the Victoria Cross and finishing the war as a brigade commander in the British Army. Between the wars, he continued in the army, rising to be Assistant Quartermaster-General of Southern Command, before being promoted to be the youngest Major General of the British Army and worked in the War Office as a staff officer before a brief period of

¹ Captain Alfred T. Mahan, USN, *Armaments and Arbitration* (New York: Harper & Brothers, 1912), p. 200

civilian employment.² Of note is his publication in 1933 for the guidance of regimental officers titled 'A Study in Unit Administration', in which he argued that:

The running of an army unit is really the same as carrying on any business. There is a definite objective in business, ie to make money. In the Army administration it is to feed, clothe and keep the man fit and as happy as possible. And to hand over to him at the pay table each week his pay intact.³

Crump did not have to convince his GOC of the important, if tedious, requirement for administering the force in all areas – feeding, equipping, maintaining and moving all troops and vehicles. In fact, when delivering lectures to his own troops as part of their individual training in 1940, Freyberg asserted that “war is 75% administration”.⁴ The two commanders first met on Christmas Day 1939, which was in fact the very first meeting that Freyberg had arranged with anyone after arriving in Wellington from the United Kingdom. At this meeting, Freyberg met his key staff of the budding 'Special Service Force', being Colonel Reginald Miles (Commander of Royal Artillery), Colonel Edward Puttick (brigade commander), Colonel William (Bill) Stevens (in charge of administration), Lieutenant Colonel Keith Stewart (General Staff Officer), Lieutenant Colonel Stanley Crump and Lieutenant Colonel Thomas King (in charge of ordnance).⁵ Whilst the conference notes of this meeting have not been kept, the importance that Freyberg put on establishing good relationships with his key commanders, including Crump as Commander of the Army Service Corps is shown by this being the very first meeting arranged on Freyberg's arrival in New Zealand.

Crump (and the other commanders) was able to brief Freyberg on the efforts over the previous two months since the declaration of war to mobilise what became the Second New Zealand Expeditionary Force (2 NZEF). For the New Zealand Army Service Corps, this was raising and training the units which became known as the 4th Reserve Mechanical Transport Company, the 1st New Zealand Ammunition Company, the New Zealand Divisional Supply Column (which later was renamed New Zealand Divisional Supply Company) and the New Zealand Petrol Company. These units of Crump's Army Service Corps began mobilisation split across the three main camps of New Zealand in 1939: Ngaruawahia (to be later replaced by Papakura), Trentham and Burnham.⁶ The

² William Graham McClymont, *To Greece*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1959), p. 14

³ B.C. Freyberg VC, *A Study of Unit Administration*, (Aldershot: Gale & Polden, 1933), p. 15

⁴ B.C. Freyberg VC, 'Conference Notes - 2nd November 1940', in R16700536 'Special Files - Lecture Notes, February 1940 - September 1942', (ANZ)

⁵ B.C. Freyberg VC, *Itinerary of Major-General B.C. Freyberg, December 39 - January 40* in R16700588 'General Officer Commanding - First Visit to New Zealand - December 1939 - January 1940', (ANZ)

⁶ Jim Henderson, *RMT: Official History of the 4th and 6th Reserve Mechanical Transport Companies, 2 NZEF*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1954), p. 1

initial training of the First Echelon soldiers in these main camps of the country was very much to do with turning civilians into soldiers, regardless of which unit they were being mobilised for. As today, basic training for ASC soldiers involved being issued with army clothing and equipment (some of dubious quality given the state of New Zealand Military stores in 1939), endless drill around the parade ground, and the basics of marksmanship and weapon handling at the rifle range.

Amongst the key issues Crump was addressing at that point was how to train his units in supporting mobile warfare with mechanised vehicles when the Army at that time in New Zealand was only equipped with a handful of trucks. A temporary solution was found for at least a modicum of training in motor transport to be conducted before embarking for overseas service – the Officer Commanding (OC) Petrol Company in Trentham received orders in November 1939 to uplift a motley crew of transport from Palmerston North, being a “mixed bag of butchers’ vans, brewery wagons, and the like, plus one Diamond-T truck, and Indiana 5-ton flat-top, and a couple of Morrises.”⁷

Despite a lack of motor vehicles for the New Zealand military forces, Crump clearly was not going to neglect this vital aspect of his soldier’s training before embarkation. Had he not arranged this, all ASC soldiers would have had to wait until receiving their full complement of vehicles in Egypt as part of bringing the 2 NZEF units up to war establishment. This was in fact the plan that was set upon by the War Office and New Zealand – New Zealand forces would sail to Egypt, a convenient staging location before entering the more dangerous waters (and air space) of Europe, and at which location the force would undergo final individual and collective training, whilst also being equipped with vehicles and equipment from the United Kingdom.⁸

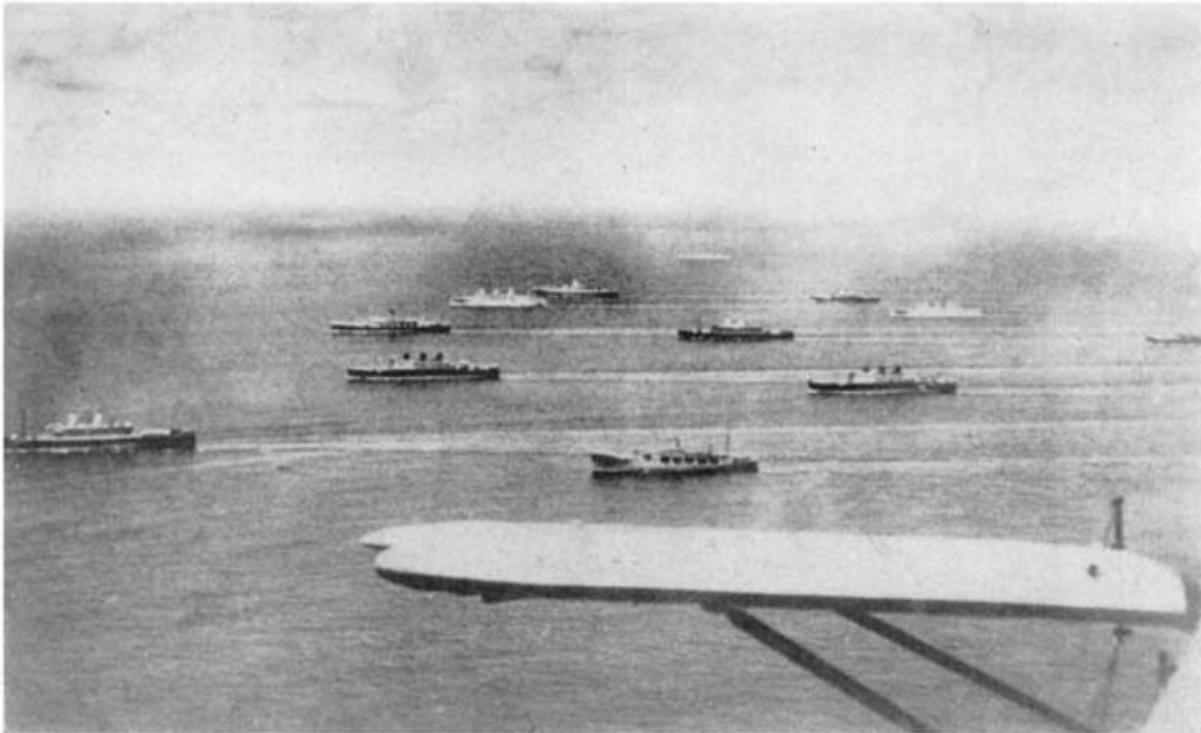
Little else is recorded about Crump’s individual efforts during the mobilisation phase of the 2 NZEF. The requirement to transform recruits into soldiers was uniform across all branches of the Army, and as New Zealand was not going to be the ultimate staging depot for further training and equipping of the force, the three months between declaration of war in September 1939 and embarkation of the First Echelon in January 1940 did not provide any notable opportunity for Crump to greatly contribute to the war effort other than what has already been outlined. Instead, all documents and recollections about the ASC during the war naturally focus on the weightier matters after embarkation. However, Crump does feature prominently in one episode of the journey of that First Echelon to Egypt, which says something about his character and drive for results. Crump was

⁷ A. L. Kidson, *Petrol Company*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1961), p. 8.

⁸ McClymont, *To Greece*, p. 16

appointed the OC Troops on the transport ship *Orion*, a converted passenger steamer which carried the 18th Battalion as well as many of his own ASC troops.

Figure 4: First Echelon Ships⁹



First Echelon and AIF convoy in the Indian Ocean, January 1940. The ships are: Nearest line (from left), *Otranto*, *Sobieski*; second line, *Strathnaver*, *Strathaird*; third line, *Orion*, *Orford*, *Dunera*; fourth line, *Empress of Canada*, *Empress of Japan*; fifth line, *Orcades*, *Rangitata*; at rear, an escorting cruiser

The *Orion*, with all other ships in the convoy sailing to Egypt, stopped in Fremantle, Western Australia on 18 January 1940. General leave was allowed until midnight that day, but the events of 19 January came to be etched in the minds of the soldiers on board that ship. A route march was organised for the 12 miles between Fremantle and Perth, in the middle of Australian Summer, for reasons that have been the subject of imagination and speculation ever since. The most credible reason given is that Crump (and probably the CO of the 18th Battalion, Lieutenant Colonel John Grey) wished to acquire another day's leave ashore for the men, as the convoy commander was unwilling to allow more shore leave without a legitimate reason to not be on board the ship. However, this clearly was not communicated to the troops, amongst whom rumours spread that the march was for some sort of punishment or cruel training regime. Whilst that is almost certainly not the case, the idea of a forced march in the mid-summer heat of Western Australia, by men who had been in

⁹ McClymont, *To Greece*, facing p.94

uniform only three months, who had not been accustomed to their boots and had been sedentary for the previous two weeks since leaving New Zealand was probably optimistic and an overestimation of his soldiers' fitness.¹⁰ The hardship of this march, and the size of the blisters it generated, became legendary amongst the 2 NZEF, but also earned the 18th Battalion as well as the ASC an ability to endure some certainly arduous conditions. Regarding Crump, this march can inform us of a few things – his high expectations of physical fitness and endurance, his ingenuity in arranging an extra night's leave for his soldiers, but also perhaps an ignorance of the extent to which he was pushing his men.

If there was this ignorance, Crump was not the only commander of troops in this convoy who, as a veteran of the First World War, had a desire to bring up the new generation to the higher standards of twenty years' ago (even if these standards were perhaps imagined). An anonymous account of the journey of the First Echelon, but probably written by Lieutenant Colonel (later Major General) William (Bill) Stevens, has the following to say about the younger generation of New Zealanders deploying to fight a war:

The men seem different from the 1st NZEF. These present men seem to want to complain about everything. In fact they almost cry. The food on this ship was ample and good, but trivial complaints were frequent and given with such injured airs... The men should be lectured on the tendency to moan, and be told to be men and realise they are now soldiers and whilst they are being well treated and everything possible being done for them they should play the game.¹¹

Crump and Stevens were well-acquainted, had a very similar background as First World War veterans and served together in the small permanent staff of the New Zealand Army between the wars. Whilst the observations of one cannot be attributed to the other, an attitude of wanting to bring the younger troops up to the standard of the tougher First World War troops would go some way to explaining why Crump organised such an arduous march that other commanders did not see the desire to replicate.

The remainder of the journey passed without further incident or notable involvement of Crump, aside from some records of his high standards and willingness to express them. The routine orders issued in his name on this journey (but probably written by his adjutant) reflect

¹⁰ W. D. Dawson, *18 Battalion and Armoured Regiment*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1961), p. 22

¹¹ William Stevens, 'Report of Officer in Command of Troops, January 1940,' in R18527832 'Transport, report of DQMG (District Quartermaster General) on visit to Australia', (ANZ)

a bluntness that left the men in no doubt of the situation. For example, one set of routine orders reads “the utter stupidity of men climbing on to the ship’s rails and rigging and sitting on or leaning far over the rails is brought to the notice of all ranks. The convoy is operating under wartime conditions.”¹²

The convoy arrived in Egypt in February 1940, and the First Echelon began its planned individual and collective training. Freyberg had arranged for Maadi Camp to be constructed, south of Cairo, which at that stage was only beginning its development into the significant mounting base for New Zealand troops, a role it served throughout the war. Crump’s duties from March until May 1940 included a key role to equip the force, through which he rapidly built up a good rapport with the commanders of the British Troops in Egypt (BTE) Royal Army Service Corps (RASC). He was also required to conduct training on the tactical courses being run for officers and issued orders on various matters that required his raw soldiers to receive some more clear guidance such as the ban on troops getting tattoos (due to an outbreak of septic rashes from those unwise enough to do so), or the desirability of utilising proper abbreviations in service writing. Furthermore, Crump’s orders addressed racial tensions which he wished to cease – he directed that *all* members of the British armed forces were free to use the canteen (probably aimed at members hesitant for Indians to use such services). His orders also allowed sightseeing tours and leave to be conducted as the rest of the units were allowing too.¹³

During this time vehicles continued to be ordered and provided from the United Kingdom to Egypt. This enabled Crump’s ASC soldiers to begin their journey towards expert familiarity in their machines of war. Hardly any of Crump’s soldiers had prior experience with heavy vehicles. For example, one of 4 RMT’s sections (a platoon-sized unit) had 90 men, but only three had driven heavy transport vehicles in New Zealand, and only 30 of the whole section had a basic car license. The remainder, 57 men, had never even driven a car.¹⁴ The challenge of turning untrained civilians into expert drivers and soldiers was met by Crump and his subordinate commanders who began an intensive and innovative training regime to teach not just how to drive, but also how to navigate the barren desert by day and night (a skill that paid great dividends later on in the war), maintain the vehicle, marry-up with the fighting troops and how to defend against air attack (largely through the adoption of dispersion and set

¹² S.H. Crump, 'Routine Orders - Orion, January 1940' in R26220217 'HQ Command NZASC Unit War Diary - December 1939 to January 1940', (ANZ)

¹³ S.H. Crump, 'Routine Orders - February 1940' in R26220218 'HQ Command NZASC Unit War Diary – February 1940', (ANZ)

¹⁴ Henderson, *RMT*, p. 6

distances between vehicles). Although it took until May 1940 for the majority of his complement of three-ton Bedford lorries to arrive for his units, the Motor Transport (MT) training began as soon as Crump could engineer with another motley-arrangement of vehicles commandeered in Egypt soon after arrival.

However, Crump's tenure in command of his ASC troops in Egypt was to be disrupted when he was sent to the United Kingdom on 29 May 1940 for 'special duty', as he and other key commanders were required to marry up with the Second Echelon who were diverted there instead of Egypt.¹⁵ By the time it came for the Second Echelon to depart New Zealand in May 1940, the situation of the war was in considerable flux. Italy had not yet declared war, but was expected to do so, and there was unease about Japanese intentions. There was discussion with Australia and the Admiralty in the United Kingdom about convoy options and what protection could be offered, and then on 10 May Germany made an unexpected move by invading Holland, Belgium and Luxembourg, ending the 'phony war' phase of the European theatre. Although the Second Echelon had already sailed by the time this came about, and was destined for Egypt, the British Government decided that no more ships were to come through by way of Aden and the Suez Canal. The convoy therefore headed to Britain, despite the objections from Freyberg who did not want his division split.¹⁶

Senior officers including Crump were called from Egypt to the United Kingdom in order to prepare administration and logistics for the garrisoning of this Second Echelon in the United Kingdom, arriving in early June 1940. The Aldershot area was selected, and so Crump (along with other officers in charge of administration, medical services, ordnance services, the military secretary and the assistant adjutant and quartermaster general) was tasked with setting up a new reception and staging area, to prepare not just for training as originally intended, but mainly to be part of the home defences to counter the anticipated German invasion. The convoy duly arrived in Scotland on 16 June.¹⁷

The strategic situation was to only grow worse with the fall of France. From 17 June, 2 NZEF (UK) was a separate formation, directly under the operational control of the War Office, and soon to be allocated responsibility for defences within Aldershot. Crump, who had been anticipating time and resources to train his troops all together in Egypt (once the three echelons had concentrated there) was now faced with the vastly different prospect of commanding the Army Service Corps for this new formation, with only a third of the original proposed forces, and without any chance to undergo

¹⁵ A.G. Hood, entry for 29 May 1940, in R26220221 'HQ Command NZASC Unit War Diary - May 1940', (ANZ)

¹⁶ McClymont, *To Greece*, p. 31

¹⁷ McClymont, *To Greece*, p. 32

training and equipping in a more benign environment. Freyberg joined his senior officers (and his Second Echelon) on 24 June, having entrusted the New Zealand troops in Egypt to Brigadier E. Puttick.¹⁸

For the next five months in the United Kingdom, Crump had the dual role of training his newly arrived ASC forces from the Second Echelon in the Aldershot area (headquartered in Mytchett Place), whilst also taking part in divisional manoeuvres actively preparing for the highly anticipated German invasion. During this time he deepened his relationship with Freyberg, who continued to maintain his dedication to the administration of the force as he was so passionate about. When giving lectures and overseeing training, Freyberg handed out copies of his book *A Study of Unit Administration* on 9 July,¹⁹ and then together the two attended the British Army School of Cookery in August, with a view to increasing the quality and nutritional value of New Zealand Army rations (see chapter 1 for details on how Crump was appointed to examine this very problem).²⁰ Freyberg was coming to rely on Crump to be able to implement considerable improvements to the administration of his soldiers, which he saw as such a vital part of generating a superior fighting force.

Divisional manoeuvres were to be the biggest feature of Crump's months in the United Kingdom, including the novel employment of bus companies to provide troop transport around the sectors for which the ad hoc division was responsible. Divisional OPORDs related to this reveal the constant refinement of procedures for road moves conducted under hostile skies, and the challenges of controlling traffic along heavily congested routes.²¹ The experience that Crump gained on these matters served to increase his diligence in ensuring that later in the war his Service Corps units were capable of transporting men and supplies in a similarly hostile environment. Therefore, it can be said that the five months he spent in the United Kingdom only helped him develop a mastery of mobile logistics, which he was able to develop in a unique training environment with a heightened sense of urgency due to the perceived imminent invasion. Furthermore, he was able to develop his relationship with Freyberg, who shared a passion for ensuring that the 'administration' of his force was delivered by well-equipped and well-trained ASC soldiers.

The official war history of the New Zealand forces in the United Kingdom at this time tells a story of such divisional exercises, the first of which took place on 18-22 July 1940. The forces were moved by convoys of buses (under Crump's control) and were tasked with repelling hypothetical attacks.

¹⁸ McClymont, *To Greece*, p. 33

¹⁹ C.J. Duff, entry for 9 July 1940 in R26105696 'HQ 2NZEF (UK) Unit War Diary - July 1940', (ANZ).

²⁰ C.J. Duff, entries for August 1940 in R26105698 'HQ 2NZEF (UK) Unit War Diary - August 1940', (ANZ).

²¹ B.C. Freyberg VC, 'NZEF (UK) Orders, Issue No 19', dated 1st August 1940, in R26105698 'HQ 2NZEF (UK) Unit War Diary - August 1940', (ANZ).

Freyberg held an after-action conference and “went ruthlessly though all the mistakes with his officers and NCOs.” Freyberg was insistent that the force could not only improve but master the ability to move by motor transport (in this case, buses), deploy into position and still maintain behind the fighting troops a smooth-running organisation to keep provisions of food, fuel and ammunition flowing.²² This was the requirement that fell to Crump, and the constant improvement in the performance of the Second Echelon is testament to Crump’s performance.

Figure 5: Mytchett Place, Headquarters where Crump worked each day²³



Mytchett Place, Headquarters of 2 NZEF in the United Kingdom

The threat of invasion eventually subsided, and Freyberg was granted his fervent wish for his division to concentrate in Egypt to complete training as a cohesive force in October 1940. Crump sailed with the troops, and due to having to journey the long way round the Cape of Good Hope arrived back in Maadi Camp, Egypt on 9 November 1940. Whilst not all the Second Echelon forces were able to arrive in Egypt by this time (due to enemy actions at sea), the Third Echelon had arrived by the end of September, and so the majority of Crump’s command was finally beginning to concentrate together and become ready for training and missions.

In the meantime, Crump’s ASC units of the First Echelon had been doing more than just training. The United Kingdom Seventh Armoured Division had been tasked under Lieutenant General Richard

²² McClymont, *To Greece*, p. 36

²³ McClymont, *To Greece*, facing p. 94

(Dick) O'Connor's Western Desert Force (WDF) to prepare defences along the Egypt-Libya border in case of Italian attack. The scale of this role was greater than could be achieved by the Royal Army Service Corps (RASC) units of the 7th Armoured Division, therefore part of 4 RMT was attached for several days in October 1940, with the feedback provided about them a testament to their prior training. The Assistant Adjutant and Quartermaster-General (AA & QMG) of the armoured division wrote to Crump expressing his gratitude for their work:

which, to say the least, was a very heavy one. Their duties entailed much night work driving without lights, and over [terrain] which was wretched in places... the fact that the job was completed with only one accident speaks well for the driving and maintenance of the NZASC personnel.²⁴

In addition to 4 RMT supporting the 7th Armoured Division, Crump's other units were also required to transport units of the Western Desert Force and their supplies. Petrol and Supply Companies from July 1940 were tasked with night dumping operations throughout the Western Desert, and 4 RMT was directed to support the 4th Indian Division in their offensive operations part of Operation *Compass*. All such operations, while Crump was in the United Kingdom learning his craft as Divisional Commander of the ASC and deepening his relationship with Freyberg, served to only enhance the ability of NZASC drivers and commanders, so that when he returned in November he assumed command of one of the most experienced groups of soldiers in the entire division.

However, Crump's (and Freyberg's) ambition to train as a concentrated force was to be further thwarted by events. By the time Freyberg returned to Egypt in September 1940, he found to his despair that his division had been somewhat dispersed amongst the area of operations in support of various other British units. There was some terse correspondence between Freyberg and British Troops in Egypt (BTE) HQ, as well some heated correspondence between Keith Stewart (on behalf of Freyberg at Divisional HQ) and Brigadier Edward Puttick regarding the attachment of units made in his absence:

Dear Brigadier, the GOC has asked me to say that he considers that you have landed him in a most difficult position with all the detachments that have been made during his absence. All our efforts to get the Ammunition Company and the other units meet with the same fate: a whine from BTE that they cannot be spared.²⁵

²⁴ D.T. Maxwell, 'Letter from HQ 7 Armd Div to CRASC, NZ Div, dated 21 October 1940' in R20109282 '2NZEF - NZ Army Service Corps - Letters of Appreciation of Work During Libyan Campaign', (ANZ)

²⁵ K.L. Stewart, 'Letter Lieutenant Colonel K.L. Stewart to Brigadier E. Puttick' dated 10 October 1940 in R21124597 'Notes on Conversations with Freyberg, 15 June 1940', (ANZ)

Amongst others such as signallers and engineers, these detached units included Crump's Ammunition Company (to Abbassia), the 4 RMT Company (to the Western Desert Force) and mechanics of the ASC to various other units.

Freyberg continued to press upon his British superiors the inadvisability of treating the New Zealand force as part of the British Army, able to be "split up and used piecemeal".²⁶ Gradually he succeeded, but he was not able to fully extract the ASC units until February 1941. In the meantime, units such as the RMT and Ammunition Company continued to gain invaluable experience against a real enemy and in support of real troops. This did not go unappreciated or unmentioned by the Commander of the Western Desert Force, Lieutenant General Dick O'Connor who wrote in February 1941:

My dear Bernard, this is just a line to thank you very much for the excellent work carried out by your first and second line transport, the Reserve MT Company and other units assisting. May I also say how grateful I am to you and your Government for lending their services to us at such an important moment. I do not know what we would have done without them.²⁷

The tasking of Crump's units in support of other troops was to be called to an end, but only due to pressing need - the decision having been made - to deploy the New Zealand Division to Greece in March 1941. By now, the most experienced unit of the 2 NZEF was in fact 4 RMT, having served with distinction in Operation *Compass* as part of the Western Desert Force. Crump was now able to finally bring all his units up to 100% 'War Establishment' (in terms of equipment being issued as per the Table of Entitlement), and he spent the month completing administration to move his units to transit areas and prepare for deployment to Greece. There was to be one further development for Crump before that ill-fated campaign: on 5 March 1941, Stanley Crump was promoted to full colonel, with effect from 27 February 1941.²⁸ Normally for the British Army, divisional Commanders of Royal Army Service Corps were lieutenant colonels, as Crump was up until this point in time. That Freyberg promoted him beyond the normal rank for this position is a mark of the esteem which he held Crump in by this early point in the war.

²⁶ B.C. Freyberg VC, 'Letter from General Freyberg to Brigadier Galloway, Headquarters, British Troops in Egypt' dated 19 October 1940, in *Documents Relating to New Zealand's Participation in the Second World War 1939-45: Volume 1*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1949), p. 190

²⁷ R.N. O'Connor, 'Letter Lieutenant General Dick O'Connor to Major General Bernard Freyberg dated February 1941' in R20109345 '2NZEF - NZ Army Service Corps - 4 NZ Reserve Mechanical Transport Company - Unofficial History - J W Sargent', (ANZ)

²⁸ AG Hood, entry for 15 March 1941 in 'War Diary of Headquarters NZASC for March 1941' in R26220231 'HQ Command NZASC Unit War Diary - March 1941', (ANZ)

Throughout the mobilisation, journey to the Middle East, initial training in that staging base the conduct of his 'special duties' in the United Kingdom preparing for invasion, and administration of his units whilst dispersed throughout the British Troops in Egypt, Crump demonstrated the highest qualities of a professional military logistician. He became highly valued by Freyberg, who himself was passionate about army administration and the feeding of his soldiers (and machines). The trained state of his soldiers was frequently remarked upon with the highest of praise by superiors and neighbouring allied commanders, and by the time it came to send the division to its first engagement as an intact force, Crump had built up his ASC to be experienced, reliable and tested. He was fortunate that events would see his units become veterans in his absence, and he himself was able to learn his own craft as divisional CRASC under the threat of invasion from across the Channel, a challenge to which he fully rose. Overall, in the first year of the war Crump oversaw the development of the Army Service Corps from a disparate untrained mob of civilians, most of whom had never even seen a truck, into a veteran and innovative force who had already earned a reputation for excellence in North Africa.

Not all units of the New Zealand Division were nearly as well trained or experienced as Crump's ASC. But the real test lay ahead - his troops would need all their experience and knowledge in the forthcoming campaigns in Greece and Crete.

CHAPTER THREE – Defeat in Greece

Amateurs talk about strategy and tactics. Professionals talk about logistics and sustainability in warfare.

General Robert H. Barrow, USMC, 1979¹

New Zealand's campaign in Greece was the first occasion that the entire division fought as a gathered force. It was not successful. Almost as soon as Germany invaded Greece, the British forces began withdrawing, Greece capitulated, and the British, Australian and New Zealand troops evacuated by sea to either Crete (where further disaster awaited) or North Africa. Crump's role in this failure must be critically examined to determine if lack of ammunition, petrol or other supplies played a role in New Zealand's inability to halt the German attacks, or else if lack of transport played a role. As this chapter will show, the failure was not for want of supplies or trucks, and in fact Crump played an admirable role in ensuring availability of material. Rather, the failure in Greece was tactical or operational, whereby too much was being asked of too few troops from the beginning.

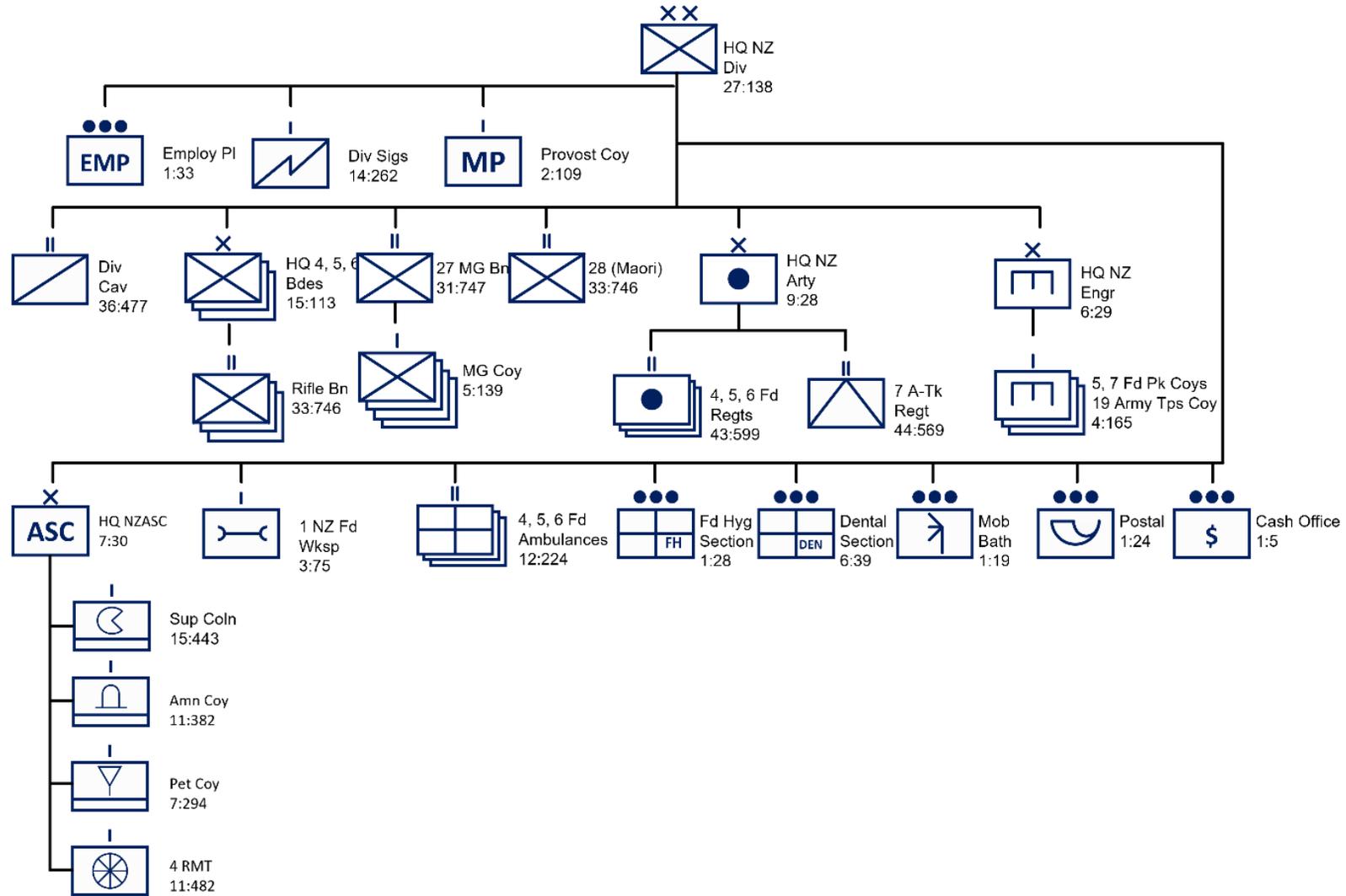
The history of logistic units can only be understood alongside a narrative of tactical events, fought by the 'fighting forces', that is the infantry. Where possible, this chapter will refer to 4, 5 and 6 Brigades, their major movements and engagements, and will detail the concurrent movements and activities of Headquarters New Zealand Army Service Corps (HQ NZASC), Ammunition Company (Amn Coy), Petrol Company (Pet Coy), Supply Company (Sup Coy) and 4 Reserve Mechanical Transport Company (4 RMT).

The structure of the division at the beginning of the Greek campaign is summarised in the following net-diagram, utilising modern military symbology with personnel strengths shown as Officers: Other Ranks (ORs):²

¹ 'Marines' Barrow backs SALT – and Conventional Rearming', San Diego Union (San Diego), 11 November 1979, p. 68

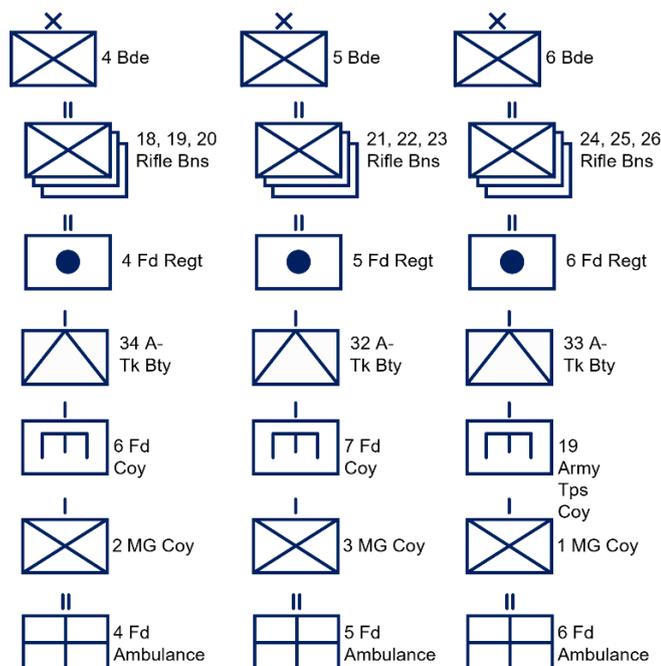
² 'Staff Table for NZ Division' in R23517351 'HQ 2 NZ Division, General Staff – War Diary, 1 March 1941-30 April 1941, Volume 2', Archives New Zealand (ANZ)

Figure 6: New Zealand Division ORBAT at beginning of Greek Campaign



Further to this summary of the total divisional Order for Battle (ORBAT), the three infantry brigades were to be generally structured with the habitual groupings and support relationships, as practiced in North Africa in February 1941:

Figure 7: New Zealand Division Habitual Groupings¹



These support groupings did not include habitual relationships between any of Crump's ASC units and the rifle brigades. At this stage of the war, it was not thought necessary to allocate units such as sections of the RMT to any particular brigade, as the second line support units could be surged to wherever the need was greatest, or else to service field dumps and commodity points. The total strength of the division is shown in the following table. Note that the standard brigade groupings each consisted of 3,792 personnel:² Also note that the 28th (Maori) battalion was not initially assigned to any brigade, being a divisional asset, but it sailed with 5 Brigade to the United Kingdom, and came under the command of that formation on 5 March 1940.³

¹ 2 NZEF War History Branch Unpublished Campaign Narrative, Greece, Part 1, R20109784 (ANZ), p. 9

² 'Staff Table for NZ Division' in R23517351 'HQ 2 NZ Division, General Staff – War Diary, 1 March 1941-30 April 1941, Volume 2', (ANZ)

³ J.F. Cody, *28 (Maori) Battalion*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1956), p. 44

Table 1: New Zealand Division Staff Table Summary*

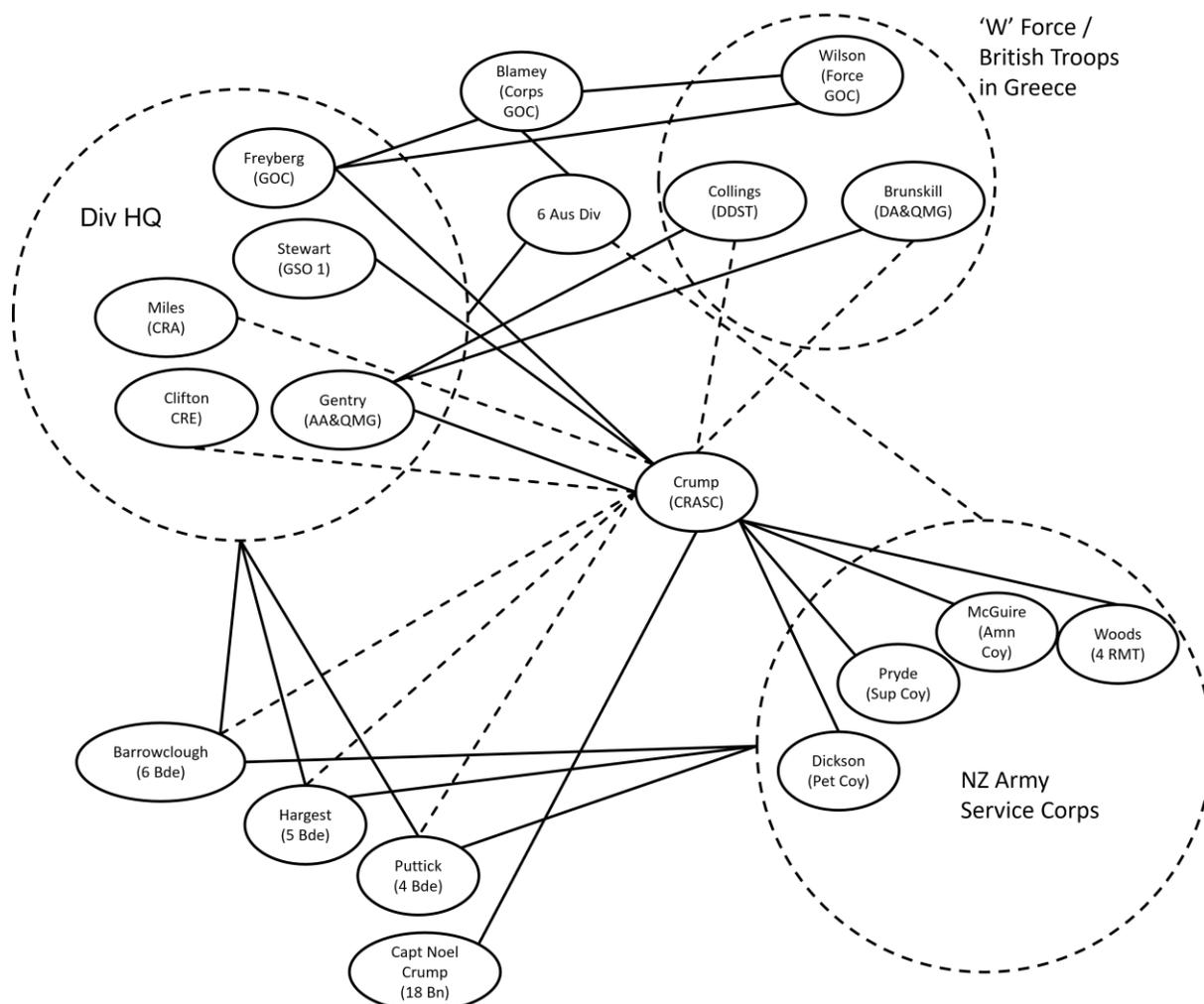
	Offr	OR	Total Pers	Trucks	Lorries
Total HQ NZ Div	44	542	586	38	37
Div Cav Regt	36	477	513	15	31
HQ Inf Bde	15	113	128	16	7
Rifle Bn (x3)	33	746	779	41	13
Total Bde (x3)	114	2,351	2,465	139	46
MG Coy (x4)	5	144	149	21	2
27 MG Bn	31	747	778	104	19
28 (Maori) Bn	33	746	779	41	13
HQ NZ Arty	9	28	37	6	0
Fd Regt (x3)	43	599	642	13	30
7 Anti Tank Regt	44	569	613	58	22
Total NZ Arty	182	2,394	2,576	103	112
HQ NZ Engr	6	29	35	7	0
Fd Coy (x3)	4	165	169	9	18
Total NZ Engr	18	524	542	34	54
HQ NZASC	7	30	37	1	2
Sup Coln	15	443	458	26	79
Amn Coy	11	382	393	0	83
Pet Coy	7	294	301	0	82
4 RMT	11	482	493	0	183
Total NZ ASC	51	1,631	1,682	27	429
1 NZ Fd Wksp	3	75	78	0	5
Fd Amb	12	224	236	0	54
Misc Spt Troops	10	115	125	11	7
Total NZ Division	762	14,528	15,290	790	899

Within each rifle battalion, there was an 'Admin and Transport Platoon', consisting of a small quantity of trucks and lorries to be able to conduct limited transportation of the battalion, also carrying immediate stockholdings of food, petrol, ammunition and other stores. This admin platoon (under the charge of the Battalion Quartermaster) also consisted of the cooks for the battalion, who in turn were reliant on semi-regular delivery of rations from the Divisional Supply Company.

Within this divisional structure, the role of the Army Service Corps Commander was of central importance for the various moving parts. Whilst may be obvious that in a military hierarchical structure Crump was be a key link between Division HQ and the units under his command, the nature of flanking units, superior HQs and support being direct to each brigade meant that Crump's network of relationships was a more inter-connected web of strong, habitual (or family) relationships. These are shown in a solid line, with other occasional or liaison type relationships shown in dotted lines, in the following network diagram of Crump and other key commanders and officers in Greece:

* Trucks are defined as 15 cwt (.75T) or less, lorries are 30 cwt (1.5T) to 3 T.

Figure 8: Network Diagram of Crump in Greece



Within this network, some key roles and responsibilities must be detailed in order to understand how Crump contributed to the functioning of the New Zealand Division in Greece. Although Crump answered directly to Freyberg as his immediate '1-Up', the Assistant Adjutant and Quartermaster General (AA&QMG) of the division had responsibility for planning the sustainment and logistics of the Division. Lieutenant Colonel Bill Gentry (later Major General Sir Bill Gentry) held this role within Divisional HQ during the Greek campaign and had a small handful of staff officers to assist him with planning supply and transport for the Division. The responsibility for carrying out these sustainment plans and orders lay with Crump, and these two officers maintained a close relationship from before the campaign. Gentry's letters home to his wife often mention Crump along with other key commanders and staff officers and their social lives together.⁴ Gentry even wrote to his wife immediately after the conclusion of the Greek campaign that Crump (and George Clifton, Commander of Engineers) had stood up to the test, unlike others: "Petty differences all seem to get

⁴ Letter Lt Col W.R Gentry to his wife, dated 11 November 1940, in 'MS-Papers-5525-3', Alexander Turnbull Library (ATL)

pushed down to the bottom of the bag at times like those we have just gone through and what matters most is grit and soldierly quality.”⁵

Also within Divisional HQ, Crump had a key relationship with the General Staff Officer – First Class (GSO 1), (then) Colonel Keith Stewart, later Major General Sir Keith Stewart. As GSO 1, Stewart was Freyberg’s principal staff officer, responsible for the compilation and issuing of all tactical orders and liaison with the various units. The GSO 1 was in overall charge of the Division HQ and had a key role communicating with both Corps HQ (Anzac Corps under the Australian Lieutenant General Sir Thomas Blamey) and the overall Force HQ, also known as ‘W-Force’, under the command of the British Lieutenant General Sir Henry Wilson.

Force HQ had within it two key positions responsible for overall logistics within Greece for all British forces. These positions were the Deputy Director of Supply and Transport (DDST) and the Deputy Adjutant and Quartermaster General (DA&QMG), filled by Brigadier Wilfred Collings and Brigadier George Brunskill respectively. Between them, the DDST and DA&QMG were responsible for directing the establishment and operation of all bulk supplies within Greece, through a system of base supply depots, forward supply depots and field dumps, which Crump’s units were then tasked (through Divisional HQ) with either operating themselves or else from where they uplifted supplies for further distribution forwards.⁶ Brunskill wrote of the following challenges he and Collings faced in Greece:

The Greek Army was... already using its railways almost to maximum capacity, the country had been denuded of every animal, cart and motor vehicle which was fit for use... there was no meat and flour was short... The British Military Mission in Athens had placed large orders for equipment, stores, food, coal etc at home and occasional ships were arriving from Britain, but the programme of fulfilment of the orders could not be predicted at all. From a Greek point of view therefore, the cupboard was nearly bare of local resources; from a British army point of view nothing was available locally.⁷

In addition to these key logisticians in Greece, Crump also had obvious relationships with his own immediate subordinate commanders (Major Dickson of Petrol Company, Major Pryde of Supply Company, Major McGuire of Ammunition Company and Major Woods in charge of 4 RMT), as well as

⁵ Letter Lt Col W.R Gentry to his wife, dated 2 May 1941, in ‘MS-Papers-5525-3’, (ATL)

⁶ William Graham McClymont, *To Greece*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1959), p. 85

⁷ Brigadier G.S. Brunskill, ‘The Campaign in Greece in 1941,’ *Army Quarterly*, April 1947

relationships to the three brigades he was tasked with supporting. At each Brigade HQ there was (usually) a staff officer employed as Brigade Transport Officer (BTO), though when necessary an officer could be attached from 4 RMT to the Brigade to fill this role. It must be noted that Crump was already well acquainted with the Brigade commanders from his service between the wars and on active service in the UK or North Africa up to this point, with Puttick recording in his diary the not-infrequent social gatherings of Crump along with Miles, Barrowclough, Inglis, Stewart and Gentry.⁸

Such was the network of officers and headquarters which Crump was working within. He is always referred to with fondness by others (in particular Bill Gentry in his letters home), and his professionalism and dependability were highly valued. Crump's role was central to moving and supplying the New Zealand Division in an austere environment (as described previously by Brigadier Brunskill); he was required to work within the various plans for moving troops and supplies, as well as actively contributing to those plans through division HQ.

Attention must now be turned to the tactical situation in Greece. The decision to deploy British troops to Greece remains controversial and requires a small explanation here in order to illustrate the context of a doomed campaign in which Crump's efforts (indeed, the efforts of the entire New Zealand, Australian and British forces) were destined to make no difference. Ian Wards has detailed the conflict between political decision and military capability and makes a strong case that the campaign in Greece was destined to fail because the size of the Allied military force deployed was always going to be insufficient against the German onslaught. Although the military commanders knew this at the time, political considerations took priority. In particular, the political goal was initially to generate a united front against the Axis consisting of Yugoslavia, Greece and Turkey, but even as that goal withered, British leaders and commanders retained their commitment to deploy a military force as much from a moral duty to stand by Greece as any strategic objective.⁹

The British force to deploy to Greece comprised of the British 1st Armoured Brigade, the New Zealand Division and the 6th Australian Division. Churchill recorded that these "were all fully equipped at the expense of other formations in the Middle East." The Royal Air Force numbered only seven squadrons, "badly handicapped by the scarcity of landing grounds and inadequate signal communications... [Around 80 aircraft] were matched against a German air strength of over eight hundred operational aircraft."¹⁰

⁸ Entries for 14 February, 15 February and 22 February, personal diary of E. Puttick, 24 June 1940-27 July 1941, R21124665 (ANZ)

⁹ Ian Wards, 'The Balkan Dilemma', in John Crawford, ed., *Kia kaha: New Zealand in the Second World War* (Auckland: Oxford University Press, 2000), p. 30

¹⁰ Winston Churchill, *The Second World War*, (Melbourne: Cassell, 1948), p. 171

Freyberg was sceptical about prospects from the beginning, though how much or how clearly he communicated his misgivings to the New Zealand Government remains under question. The tactical situation was simply that an understrength British and Greek combined force was being asked to hold too much ground, requiring a dispersal of forces which, against a well-equipped and experienced German Army, with superior air support, was always going to result in a need to withdraw. In particular, the Monastir Gap presented an opportunity for the Germans to outflank the Metaxas Line and directly threaten the Aliakmon Line, thus negating the defensive preparations in those positions. Crump's successful provision of supplies and transport of forces did not matter in the context of such tactical limitations.

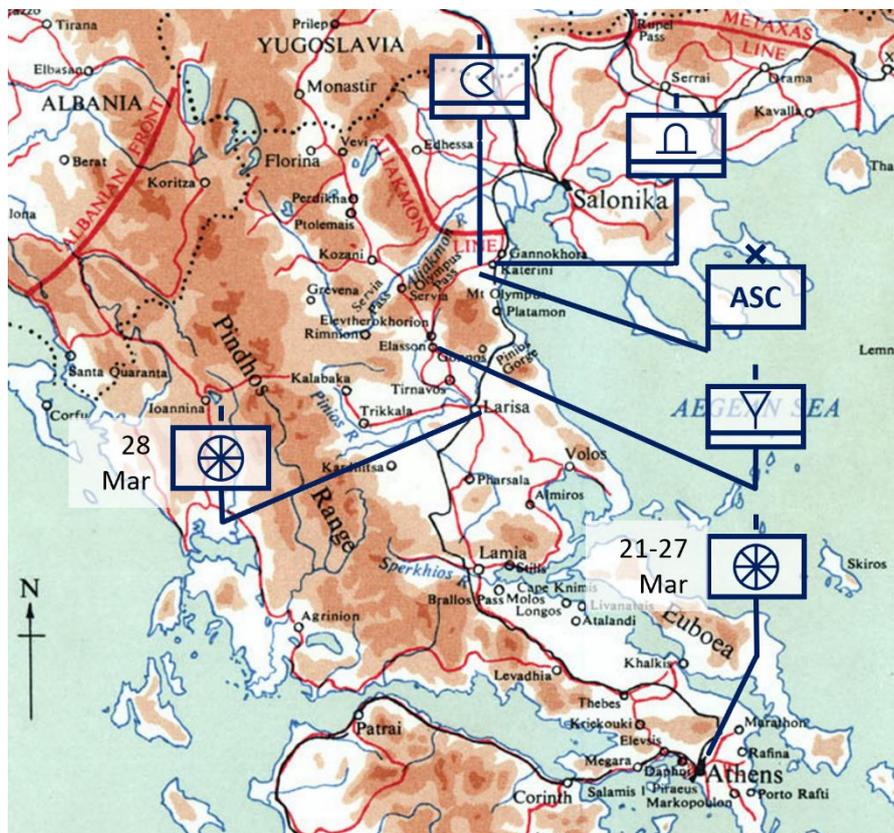
The overall timeline of events in March relating to the Division, Crump and his ASC is as follows:¹¹

7 March	Freyberg arrives in Athens with a skeleton Divisional HQ staff
15 March	4 Bde (18, 19, 20 Bns) disembarks at Piraeus Harbour
15 March	Supply Company disembarks at Piraeus Harbour
18-20 March	Ammunition Company disembarks at Piraeus Harbour
18-19 March	Petrol Company disembarks at Piraeus Harbour
19-21 March	4 RMT disembarks at Piraeus Harbour, proceeds to Kephissa (Athens).
22 March	6 Bde (24, 25, 26 Bns) disembarks at Piraeus Harbour
24 March	6 Bde moves to Katerini
25 March	Ammunition Company establishes at Katerini (rail yard) Supply Company establishes at Neon Keramidi
26 March	5 Bde elements (22 and 21 Bns) disembark at Piraeus Harbour
27 March	5 Bde elements (HQ, 23 and 28 Bns) disembark at Piraeus Harbour
28 March	4 Bde occupies defensive position in vicinity of Katerini 4 RMT moves to Nikaia, vicinity of 81 Base Sub-Area
30 March	Petrol Company establishes at Elasson, Mt Olympus

¹¹ Entries for March 1941, following unit war diaries: HQ 4 NZ Bde March 1941 (R23517424), HQ 5 NZ Bde March 1941 (R23517597), HQ 6 NZ Bde March 1941 (R23517662), HQ NZASC March 1941 (R26220231), 1 NZ Sup Coy March 1941 (R26220436), 1 NZ Amn Coy March 1941 (R26220276), 1 NZ Pet Coy March 1941 (R26220347), 4 NZ RMT March-June 1941 (R26220505), Archives New Zealand (ANZ)

The following map shows the dispersion of Crump's ASC by the end of March 1941:

Figure 9: New Zealand Dispositions, March 1941



The dispersal of Crump's ASC as well as the distances between the RMT company located in Athens and the remainder of the Division to the North at the Aliakmon Line was not by Crump's design, but was instead forced upon him by the Corps and Force commanders who had effectively commandeered the RMT for rear duties. Had Crump not succeeded in soon afterwards bluntly disobeying Force HQ and Australian Corps orders "which would have deprived the Division of its transport during the retreat, [the] Division would not have got out of Greece as easily as it did."¹² This was one of the first instances of Crump (to the good fortune of the New Zealanders) showing a stubbornness and a tenacity to persevere with his course of action, despite lack of agreement from superior officers.

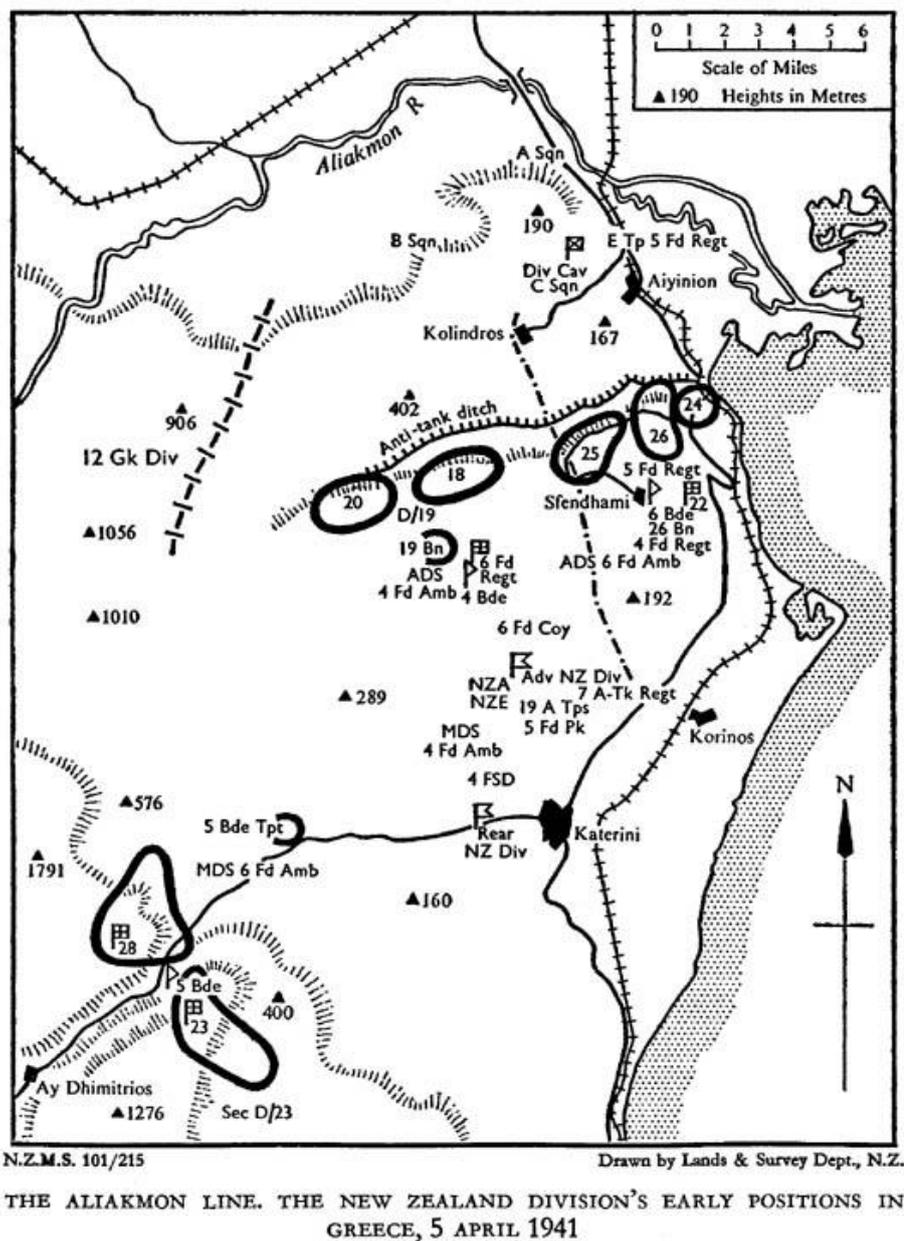
The following map from *To Greece* illustrates the tactical dispositions in detail south of the Aliakmon River as of 5 April 1941.¹³ The Division had two brigades forward (4 Brigade on the left, 6 Brigade on the right) and 5 Brigade (incl 28 (Maori) Bn) holding the pass to the East of Mt Olympus. Note that 21 Bn at this stage was located in Athens conducting what modern military terminology

¹² S.H. Crump, *Rough Notes re NZASC Functions – Quite Unofficial*, dated 25 October 1944, in R16700657 'NZSAC Reports, ASC in Italy, Rough Notes on Functions', (ANZ)

¹³ McClymont, *To Greece*, p. 143

describes as 'rear area security operations (RASO)'. 22 Bn is not shown on this map but had been allocated to 6 Brigade, to be re-allocated back to 5 Brigade by 8 April to take up a position next to 23 Bn in vicinity of the Olympus Pass.

Figure 10: Aliakmon Line, April 1941



Events rapidly developed in April, as the Germans invaded and decisions were quickly made to withdraw through successive positions and evacuate from Greece:¹⁴

¹⁴ Entries for April 1941, following unit war diaries: HQ 4 NZ Bde April 1941 (R23517425), HQ 5 NZ Bde April 1941 (R23517596), HQ 6 NZ Bde April 1941 (R23517663), HQ NZASC April 1941 (R26220232), 1 NZ Sup Coy April 1941 (R26220437), 1 NZ Amn Coy April 1941 (R26220277), 4 NZ RMT March-June 1941 (R26220505), (ANZ)

2 April	5 Bde moves to Katerini and establishes defensive position
3 April	6 Bde occupies positions in vicinity of Sphendaki
5 April	Germany declares war on Greece and Yugoslavia at midnight
6 April	Crump visits Larisa regarding supply situation
8 April	Requisitioning Officer (HQ NZASC) withdraws from Salonika as it is expected to soon fall into German hands
9 April	4 Bde occupies defensive positions in Servia Pass Salonika captured by Germans. Crump arranges for dumped supplies to be moved by train and RMT rearwards from Katerini area.
10 April	6 Bde begins withdrawal to new defensive position in Katerini Pass, 4 RMT conducts troop movement HQ NZASC moves from Gannokhora to Dolikhe
12 April	2 Anzac Corps officially formed
13 April	4 RMT (at short notice) moves 26 Bn to Lava to cover Australian withdrawal on left flank of 6 Bde
14 April	Division Cavalry Regt withdraws to Kalokouri, to front of 5 Bde position Ammunition ordered to be withdrawn from 5 Bde position
15 April	4 Bde engaged by enemy, attack repulsed with minimal New Zealand casualties 5 Bde probed by German reconnaissance units. 6 Bde moves to new position south of Elasson Anzac Corps ordered to withdraw to Thermopylae Pass area
16 April	HQ NZASC moves from Dolikhe to Tyrnavos
17 April	4 RMT brought forward to transport 5 Bde bns (including 28 Maori Bn) 4 Bde withdraws
18 April	5 Bde arrives in Molos, occupies defensive positions 4 Bde (21 Bn) fights rear guard action in Pinios Gorge with significant casualties HQ NZASC moves to Nikaia.
19 April	6 Bde arrives in Molos, occupies defensive positions 4 Bde arrives in Molos, forms coast watching patrols HQ NZASC moves to Molos
22 April	Freyberg informs Bde Comds of Greek capitulation, all British forces to be evacuated 5 Bde begins withdrawal from front in vicinity of Molos 4 Bde withdraws from Molos to Thebes night of 22 / 23 Apr

23 April	4 RMT begins moving 5 Bde to Marathon for evacuation
24 April	6 Bde withdraws from Molos to Mazi, halts for night 4 Bde occupies defensive positions covering Kriekouki Pass
25 April	5 Bde embarks from Porto Rafti
26 April	4 Bde fights rear-guard action at Kriekouki Pass
27 April	6 Bde begins withdrawal to Monemvasia for evacuation 4 Bde moves to Porto Rafti for evacuation, transported to Crete
28 April	6 Bde embarks at port of Monemvasia Crump appointed OC 'collecting centre' of supplies and vehicles, evacuates with remainder of 6 Inf Bde, Division HQ and stragglers from Monemvasia.

The withdrawal from the Olympus defensive positions through the Thermopylae Line to the evacuation beaches can be seen on the following map, with indicative dates shown on the marked lines. Simply put, the division withdrew alongside the remainder of the force, either leapfrogging positions or withdrawing simultaneously with flanking Australian and British units. Key engagements and activities were when 4 Brigade fought a rear-guard action at Kriekouki whilst 5 Brigade withdrew from Porto Rafti, following which 4 Brigade also made its way to the evacuation beaches at Porto Rafti. 6 Brigade crossed the Corinth Canal (alongside Crump and the rest of HQ New Zealand Division and HQ NZASC), before eventually embarking from Monemvasia.

Figure 11: Withdrawal and Evacuation, April 1941



Crump was not entirely successful in his efforts to disobey Force HQ's orders for his subordinate units to be reallocated to support the force as a whole. For example, in early April, Ammunition Company was tasked to report to Larisa for general transport duties. Crump gave clear direction to Major McGuire that his unit was to finish this task as soon as possible, and therefore minimise the duration of the detachment to Force HQ. However, the British officer in charge (Major Price, the Assistant Director of Supply and Transport (ADST)) informed the Officer Commanding Ammunition Company that his unit would not be able to return to the division any time soon, as it

was required indefinitely as a pool of transport. Force HQ trumped Division HQ, so Ammunition Company remained on general transport duties in Larissa from 3 April to 8 April.¹⁵

The training of all the ASC units in North Africa was to pay dividends, however, as units such as Ammunition Company demonstrated their proficiency and reliability. Major McGuire noted afterwards:

Carrying all sorts of loads... Owing to the rigorous training of the Amn Coy in night driving we were able to make the journeys in one half to two thirds the time which had hitherto been taken by English RASC units working by day in common with other NZASC units we received our share of commendation [sic].¹⁶

In addition to the draw on his ASC to support the force as a whole, Crump was heavily involved in the challenges that the supply situation faced in Greece overall. McClymont outlines the issue of the supply problem in the Official War History, describing in detail the requirement to supply the Greek forces as well as the British forces in Greece, and the general poor state of the road and rail network throughout the country. There was rail to Larisa and Katerini (locations of supply and ammunition rail heads respectively), but roads were generally narrow and incapable of carrying sustained two-way traffic of heavy vehicles.¹⁷ The HQ NZASC unit war diary records some of Crump's activities during this time, and notes that he himself went to Larisa, the location of a Base Sub Area (a key node in the supply chain for the whole force) to discuss the supply problem, presumably with the Force ADST. This shows his willingness to not restrict himself to merely commanding his ASC units, but also to get involved in the bigger-picture problems of sustaining the entire force in Greece, thus maximising the effect of his units, and ultimately ensuring that New Zealand troops were without want.¹⁸

After the fall of Salonika on 9 April, Crump concerned himself with ensuring that supplies that had been dumped forward were effectively evacuated rearwards, utilising a combination of both rail and road assets at his disposal. By 10 April, all supplies, ammunition, fuel and NZASC personnel had been withdrawn from the Katerini Area, no mean feat considering this this required

¹⁵ Entry for 3 April, 'Report on Activities of the NZ Amn Coy during the Campaign in Greece', Maj W.A.T. McGuire to Col S.H. Crump, dated 25 May 1941, in R26220276 '1 NZ Amn Coy Unit War Diary – March 1941' (ANZ),

¹⁶ *ibid*

¹⁷ McClymont, *To Greece*, p. 152

¹⁸ Entry for 6 April, R26229232, 'HQ NZASC Unit War Diary – April 1941', (ANZ)

the loading and transport of over 86,000 gallons of POL and 300,000 individual days' worth of rations (i.e., 20 days' worth of food for the entire division).¹⁹

Although it was springtime, the weather also presented challenges to Crump and his ASC, as snow, rain and hail continued to make roads particularly challenging to drive on, especially given the poor state they were in to begin with. However, a benefit of poor weather meant that the Luftwaffe was unable to conduct reconnaissance and bombing raids. Therefore, Crump's ASC was perennially challenged by the elements – either fighting the mud from the rain, or else in clear weather having to maintain countermeasures against the Luftwaffe who enjoyed air superiority given the lack of Royal Air Force protection. Those countermeasures mainly involved dispersion of vehicles and stocks. Crump's clear guidance on this during training and preparations in North Africa paid dividends as losses in static locations and on the roads remained minimal.²⁰

As the tactical withdrawal continued, Crump remained concerned with continuing to supply the division as stores and vehicles were either evacuated rearwards or else destroyed. Whilst his units were needed to issue the brigades their stores, his units were also tasked with transporting the brigades from their forward positions to the new defensive positions. These tasks fell to all the ASC companies, and the task of co-ordinating these units which were widely dispersed across the rear area of the division was no mean feat. The challenges of communicating during an ever-changing situation with the 1,600 troops split across 4 different companies under his command is shown by his actions on 18 April, where he personally stationed himself at a road junction to intercept any north-bound ASC transport and direct them south as part of the divisional withdrawal. Furthermore, having turned the infantry brigades from their forward positions, the Luftwaffe was now turning its attention to convoys and began to strafe targets of opportunity on the roads and in villages.²¹

The attention that the Luftwaffe gave to vehicle convoys moving southwards showed the great need for road discipline. In particular, this meant maintaining distances between each vehicle so as not to offer an easy target for a burst of machine gun fire or a stack of bombs from overhead enemy aircraft. The training and prior operations in North Africa meant that Crump's ASC was well-acquainted with these countermeasures and need to maintain discipline, but the remainder of the division was not at the same standard. Divisional HQ noted that in early April, "bad road discipline was in evidence", and named the chief offenders such as 23 Infantry Battalion in Katerini.²² On 12 April, HQ New Zealand Division felt it necessary to specifically criticise the bad road discipline of the

¹⁹ Entry for 9 April, R26229232, HQ NZASC Unit War Diary – April 1941 (ANZ)

²⁰ Entry for 14 April, HQ NZASC War Diary

²¹ Entry for 18 April, HQ NZASC War Diary

²² Entries for 4 and 7 April, in R26106639 'HQ 2 NZ Division 'A and Q' War Diary – January to April 1941', (ANZ)

Division in general, resulting in traffic congestion and easy pickings for the Luftwaffe, with the exception of the NZ ASC. In fact, Freyberg had his staff write to Crump "The Div Comd notes with satisfaction the very good road discipline of your units, and trusts that this standard will be maintained... I am to say that the driving of the NZASC is, as it should be, an excellent example to the drivers of other units."²³

As the withdrawal continued, Crump remained active in ensuring that his units could source supplies and issue them accordingly. POL became the critical concern, and either he or officers he personally dispatched regularly visited supply depots to see what was available to distribute as required. This involved clearing out the various British RASC depots, but POL remained scarce until on 23 April Crump personally found a dump in the vicinity of Atalante with enough to enable the refuelling of vehicles until they reached their embarkation beaches.²⁴

The evacuation of New Zealand troops (along with British and Australian troops) was remarkably successful, in no small part due to the prescience and forward planning of the Royal Navy. Crump's role in this was to stay involved in the fight, even as the majority of his HQ evacuated on 24 April from the beaches east of Athens. Crump remained behind, moving with 4 Brigade as they took a longer route over the Corinth Canal southwards down the Peloponnesian Peninsula in the face of continued enemy attack. On 28 April, Crump was responsible for the 'collecting centre' near the evacuation beach for 4 Brigade, Division HQ and various other rear parties of Australian and British troops who had been fighting rear-guard actions. At this point, Crump oversaw the destruction of vehicles whilst Gentry was in charge of the evacuation beach itself. The pain that Crump felt in destroying these key machines, having overseen the rapid delivery and the training of his men, must have been remarkable. Crump oversaw the destruction of vehicles as much as possible and held troops there until called forward by Gentry. The latter remarked "these arrangements worked well and I have never seen such a fine example of discipline on the part of the soldiers."²⁵

²³ Memo, 'Road Discipline' HQ NZ Div General Staff to HQ NZASC dated 12 April 1941, in R23517351 'HQ 2 NZ Division General Staff War Diary – 1 March – 30 April 1941', (ANZ)

²⁴ Entry for 23 April, HQ NZASC War Diary

²⁵ Comment by Sir William Gentry in R20109797 '2NZEF War History Branch Campaign Narrative: campaign in Greece, Part 5', unpublished, August 1955, p. 747 (ANZ)

Figure 12: A Soldier from Ammunition Company renders a truck useless before abandoning it in Greece, April 1941²⁶



Because Crump stayed behind with 4 Brigade and the remainder of Division HQ, he was evacuated straight to North Africa from Greece, despite most of his ASC evacuating to Crete. Of the companies in Crete, it was discovered that there was a general lack of arms and ammunition, to the extent that it was decided to evacuate either Ammunition or Supply Company. It came down to a coin toss by the ASC chaplain to determine which of these companies would be sent from Crete. As Selwyn Toogood recalled, this came down in Ammunition Company's favour, who "secured the lucky break which took them out of the grim and strenuous days which concluded that black month."²⁷

Freyberg and the majority of the Division of course remained in Crete, but as this was not a battle that Crump took part in, no further discussion needs be made on that saga. Instead, Crump was left to anxiously await news of his soldiers from North Africa during the month of May. The senior New Zealand officers in Egypt at that time were Brigadiers Miles (Commander of Artillery) and Barrowclough (Commander of 6 Brigade). Both these officers were soon admitted to hospital, so that by 14 May Crump was in charge of all remaining troops in North Africa. On 18 May, he was

²⁶ 'A soldier of New Zealand Division Ammunition Coy rendering a truck useless before abandoning it to the enemy', photograph taken by J E Taylor, 1941, DA-08193-F, (ATL)

²⁷ S.G. Toogood, 'Report on 1 NZ Ammunition Company in Greece' dated May 1941, in R20909304 '1 NZ Ammunition Company – Greece – S G Toogood', (ANZ)

therefore the senior New Zealand officer responsible during the visit of the Prime Minister, Peter Fraser, who had arrived in the aftermath of the Greek disaster.²⁸

While the battle for Crete raged, with first evacuations from that island occurring from 28 May, Crump remained in Egypt and did what he could to establish a functioning ASC HQ. Staff Sergeant Rusden of Petrol Company wrote of him at that time: “[Colonel] Crump’s chief concern was his units in Crete; and I have seldom seen a man so distressed as when the casualties began to come in.”²⁹ The concern was in fact mutual, which Captain Noel Stanley Crump of 18 Battalion noted in his letters home from Crete, observing that many people inquired to him of the whereabouts of his uncle, with obvious concern for a man whom many were fond of.³⁰

Figure 13: Colonel Crump Escorts PM Peter Fraser on Parade, May 1941³¹



²⁸ Entries for 11-18 May in R26106640 ‘HQ 2 NZ Division ‘A and Q’ Unit War Diary – May to July 1941’ (ANZ)

²⁹ A.L. Kidson, *Petrol Company*, p. 102

³⁰ Letters dated May 1941, in ‘Letters to Family, Spencely Noel Stanley Crump’, MS-Papers-6905-14, National Library of New Zealand

³¹ ‘Prime Minister Peter Fraser with Colonel S.H. Crump during a visit to the Middle East in May 1941’ taken by an official photographer (unidentified), DA-01050-F, (ATL)

Figure 14: Colonel Crump Escorts PM Peter Fraser to inspect troops on parade, May 1941³²



In conclusion, although Greece was far from a successful venture for the New Zealand Division, Crump emerged from this campaign with his reputation enhanced. This was not to be the case for every commander, even more so for those whose actions in Crete directly contributed to New Zealand losses. However, Crump achieved all that he possibly could in terms of supplying not just New Zealand troops, but also British, Australian and Greek troops, and his units played a key role in transporting troops from the forward positions in the north of Greece to their evacuation beaches in the south. Not one of the tactical activities or engagements occurred with a lack of food, petrol or ammunition, even if petrol became scarce along the way. It must be noted that but for Crump's blunt disobedience of Force and Army HQ, who had their own plans for 4 RMT, the Division would have sorely lacked their single general transport company during the evacuation. Crump remained highly involved throughout the campaign, not content to remain aloof in command, instead delving into the problems of supplies and scouring various locations when scarcity became an issue. The discipline and good order of his troops was noted by the highest levels, and no doubt served to minimise casualties amongst the ASC in Greece.

³² 'Prime Minister Peter Fraser visiting NZ soldier, Egypt', photograph taken by an official photographer (unidentified), May 1941, DA-01049-F (ATL)

CHAPTER FOUR – Calamities Continue

For want of a nail the shoe was lost,
 for want of a shoe the horse was lost;
 and for want of a horse the rider was lost;
 being overtaken and slain by the enemy,
 all for want of care about a horse-shoe nail.

Benjamin Franklin, 1758¹

Following the disasters in Greece and Crete, the New Zealand Division was nearly destroyed again in North Africa. The costliest action of the entire campaign was during Operation *Crusader* in late November 1941 at the Battle of Sidi Rezegh. This instance of near-annihilation was in no small part due to lack of supplies, especially a lack of 25-pounder ammunition for the artillery to destroy German tanks. This ammunition was one of the proverbial ‘nails’, for want of which the Division could do very little against Rommel’s tanks. Therefore, it must be asked to what extent did Colonel Stanley Crump fail in his duty to supply his division, or did he in fact succeed in spite of massive challenges and was the survival of the Division due to his skill in command of the Army Service Corps? This chapter examines the aftermath of the disasters in Greece and Crete and how Crump rebuilt his shattered Army Service Corps in mid- to late-1941 which then took part in the Division’s most furious fighting of the entire war, Operation *Crusader*.

Before delving into Crump’s command, it is useful to again provide a timeline of the major tactical and operational events for this period. This chapter begins with events in June 1941, with the Division concentrating in Helwan Camp after Crete:

Table 2: Summary of Events, North Africa, June 1941 – January 1942

June 41	Division concentrates in Helwan Camp, re-equipping and re training
10 July 41	Units reinforced almost up to full strength
4 Aug 41	Order received to move Division to Syria. Cancelled same day.
13 Sept 41	Freyberg reports to New Zealand: “The Division is trained and up to war strength and now moving in stages to the Western Desert”
October 41	Division occupies Baggush box, continues exercises and training
15 Nov 41	Operation <i>Crusader</i> Commences with Division crossing Egypt / Libyan frontier
23 Nov 41	5 Bde (incl 28 Maori Bn) detached to be under command of 4 th Indian Division

¹ Benjamin Franklin, *The Way to Wealth* (1758; Project Gutenberg, 2013), <https://www.gutenberg.org/files/43855/43855-h/43855-h.htm>, accessed 9 February 2022

23–30 Nov 41:	Battle of Sidi Rezegh and relief of Tobruk, heavy New Zealand casualties.
25 Nov 41	4 and 6 Bdes conduct westward-advance against enemy positions
26 Nov 41	4 Bde reaches Belhamed, 6 Bde reaches Sidi Rezegh but unable to secure final objective
27 Nov 41	19 Bn links up with forces in Tobruk, German tanks attack Sup Coy. 5 Bde HQ overrun in vicinity of frontier. Headquarters 5 Bde overrun, Brigadier James Hargest captured
28 Nov 41	6 Bde repels enemy attack (suffers heavy casualties), Rear Div HQ (including Crump) enters Tobruk
29 Nov 41	Division and Tobruk garrison repels heavy attack in vicinity of Ed Duda, unsuccessful link up attempted by 1 South African Brigade Crump assumes command of New Zealand Troops in Tobruk
30 Nov 41	Heavy fighting around Ed Duda, Belhamed (4 Bde), Sidi Rezegh (6 Bde) and frontier (5 Bde). German armoured units recapture Sidi Rezegh.
1 Dec 41	Germans recapture Belhamed. 4 Bde (partial) withdraws to Ed Duda, Tobruk then commences withdrawal to Egypt 6 Bde and remainder of 4 Bde link up at Zaafran, then commences withdrawal to Egypt 5 Bde and remainder of 13 th Corps pursue enemy to Gazala
2-10 Dec 41	Division (including Crump and New Zealand Troops in Tobruk) conducts withdrawal to Egypt, Division assumes role as GHQ Reserve in Baggush / Fuka 5 Bde remains in Western Desert
13 Jan 42	5 Bde joins rest of division in Egypt. Majority of NZASC remains in Fwd Area Western Desert under comd Eighth Army on 'Lines of Communication' duties

W.E. Murphy, writing the official history of the Division in North Africa covering the period from the aftermath of Greece and Crete through to the end of 1941, bluntly assessed the state of the Division after that calamity – “It was in arms and equipment, and above all in transport, that the Division was reduced to penury.”² Approximately a third of the entire Division did not return from Greece and Crete, and Crump’s ASC’s casualties were also severe. Crump lost 175 men as prisoners,

² W. E. Murphy, *The Relief of Tobruk*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1961), p. 1

wounded and killed in action in Greece,³ followed by another 679 in Crete,⁴ 854 casualties in total. The following table lists the deficiencies in each unit by June 1941, noting that every single vehicle had been lost in addition to manpower:

Table 3: NZASC Strengths by Unit

Unit	Posted Strength	Established Strength	Deficiency
HQ NZASC	30	37	7
Ammunition Coy	324	393	69
Supply Column	205 ⁵	451	246
Petrol Coy	50 ⁶	257	207
4 RMT	146 ⁷	471	325
Total	755	1609	854

Freyberg cabled to Wellington on 21 June 1941 that “Our losses in Artillery, Engineers, Army Service Corps, and Medical Corps [in Crete] were abnormally high.”⁸ In addition to those losses in Greece and Crete, Freyberg was also made painfully aware by Crump of the toll that the war to date had already taken on 4 RMT in particular, and observed to General Sir Claude Auchinleck (then Commander-in-Chief of the Middle East) in September 1941 about the company that “this unit took part in the whole of the fighting in the Western Desert right up to Benghazi. It was probably then as experienced at desert work as any unit in the Middle East. In Greece and Crete, however, it suffered 80% casualties.”⁹ Therefore, the first task Crump faced in the aftermath of Greece and Crete was to not only reinforce and re-equip his ASC with men and machines, but also to train them up to the high standard which they had been at before.

And so, his company commanders began a training program, concurrent with the allocation of reinforcements and the re-issuing of vehicles at great cost to the British Empire. By 10 July, Freyberg was able to report that due to reinforcements already waiting in Maadi, the Division was “almost up

³ W. G. McClymont, *To Greece*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1959), p. 487

⁴ D. Davin, *Crete*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1959), p. 489

⁵ P. Bates, *Supply Company*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1955), p. 132

⁶ A. L. Kidson, *Petrol Company*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1961), p. 145

⁷ J. Henderson, *RMT: Official History of the 4th and 6th Reserve Mechanical Transport Companies, 2 NZEF*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1954), p. 105

⁸ Telegram, 47 - HQ 2 NZEF to Army HQ (Wellington) dated 21 June 1941 in *Documents Relating to New Zealand's Participation in the Second World War 1939-45: Volume II*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1951), p. 33

⁹ Letter Freyberg to Auchinleck dated 13 September 1941, in R16700550 ‘Libyan Campaign – General, January – December 1941’, Archives New Zealand (ANZ)

to strength”,¹⁰ though there was a particular shortage of drivers amongst the reinforcements, necessitating a call for volunteers from other units already in the Middle East.¹¹ Training began anew, as Crump’s new soldiers and officers were either fresh to the war, or else had been re-rolled from other corps. Training initially focussed on individual training, including a considerable amount of route marching by foot, which was a key attribute desired by both Freyberg and Crump, but it also consisted of map and compass reading, Motor Transport (MT) maintenance, marksmanship and convoy procedures. By August 1941, Crump’s company commanders felt confident enough in the individual training of each man that they could recommence collective training in matters such as desert convoy driving, dispersal on the move and at the halt, camouflage, marry-up procedures (that is, marrying up with infantry or other fighting units for either resupply or transport tasks) and, tellingly, tank-hunting procedures.¹²

Not only was the trained state of his command a high priority, so too was the structure of it, the lack of transport in particular was keenly felt by Freyberg. Freyberg wrote to the Hon. Fred Jones, New Zealand Minister of Defence, in October 1941 that “This is a war of machines... Resources for the Western Desert comprise not only the provision of fighting forces but of maintenance and transportation services also. Maintenance is often the deciding factor.”¹³ The Division was rapidly adapting to the requirements of mobile modern warfare, characterised by wide-open desert spaces and vast distances to travel. But the Division was limited in that the single general transport company (4 Reserve Motor Transport Company) could only lift one infantry brigade at a time. Although plans had by now been conceived and thoroughly desired by Freyberg to transform an Infantry Brigade into an Armoured Brigade, this was still only an idea in its gestation phases and Freyberg continued to need to move his three fully-equipped infantry brigades around the Western Desert, in addition to supplying them with food, water, ammunition and fuel. Therefore, Crump raised an additional transport company, the formation of it being approved by the various War Office and New Zealand Government authorities by 14 October.¹⁴ This company was named 6 RMT, the intent for the two transport companies to be able to move 4 and 6 Infantry Brigades being clear, with plans for 5 Brigade (at some stage in the future) to become a self-mobile armoured brigade (events would see 4 Brigade instead be the infantry brigade to transform to armour). By 8 November, this brand-new unit had been successfully raised and trained, albeit with

¹⁰ *Documents: Volume II*: 49 – General Freyberg to the Acting Prime Minister, 10 July 1941, p. 35

¹¹ Entry for 14-19 June, in R26106640 ‘HQ 2 NZ Div, A&Q Branch – May to July 1941’, (ANZ)

¹² Entries for July and August, in R26220351 and R26220352 ‘Petrol Company War Diaries’, (ANZ)

¹³ *Documents: Volume II*, 102 – General Freyberg to Minister of Defence, 9 October 1941, p. 74

¹⁴ Entry for 14 October 1941, in R26220238 ‘HQ Command NZASC Unit War Diary – October 1941’, (ANZ)

only three platoon-sized sections plus a workshop, one less than the normal four-section MT company.¹⁵

6 RMT was not the only ASC unit to be formed in the aftermath of Greece and Crete. The Division could now boast a full-strength Light Anti-Aircraft (AA) regiment, which naturally consumed a heavy amount of ammunition whilst also being dispersed as a unit to various positions on the battlefield. It was therefore to be raised with its own ASC section. The CO of this regiment (as all unit commanders invariably are) was eager to maintain as much control over his forces including full control of this ASC section, but Crump would have none of it. In such an austere environment as North Africa in 1941, even small sections and units could be used by Crump to surge to wherever the need was greatest. Crump reported to Brigadier Bill Stevens (officer in charge of administration for 2 NZEF) with typical bluntness that "I have been asked by the OC of 14 LAA Regt when his NZASC section will report to him. He understands the position – which is never."¹⁶ Stevens was not amused by Crump's lack of tact but acquiesced to Crump retaining control of his ASC in its entirety.

Crump's units re-equipped, reinforced and re-trained in the few months after Greece and Crete, and by September the Division was in a state to be able to move to Fuka and then Baggush for further training and employment. It was at this point that another proverbial 'horseshoe-nail' began to be scarce, threatening the ability of Crump's units to move around the desert. The vehicles, largely Chevrolet 4-wheel trucks and Bedford 3-Ton lorries, had to traverse rough and uneven sand and desert terrain, roads being a rarity, and the trucks could only take so much. In particular, the vehicle springs began to fail under the repeated strain of the bumps, ditches and dunes. The workshops craftsmen and artificers attached to each ASC company did whatever they could, changing oil, advising drivers to take extra caution, and eventually deciding to shorten the front end of each spring.¹⁷ This was to be an ongoing concern throughout the campaign, and only through keen awareness of this problem and constant workshops attention could the shortage of steel for springs be overcome and thus the trucks kept moving.

In the meantime, the general state of logistics and supplies in North Africa and the Middle East was of concern at the very highest levels. Winston Churchill had begun to question the ability of General Archibald Wavell (who was shortly to be replaced by Auchinleck anyway) to balance all the requirements for such a vast and complex theatre which was the Middle East, and so he attempted

¹⁵ Freyberg's War Diary, 8 November 1941, National Army Museum – NZ (NAM), #51445

¹⁶ Letter Crump to Stevens dated 7 August 1941 'NZASC Section for a Lt AA Regt', in R20108095 '2 NZEF – Headquarters 2 NZ Division – War Establishments', (ANZ)

¹⁷ Memo from Deputy Adjutant and Quartermaster General (DA&QMG) to NZ Division dated 29 July 1941, in R26106640 'HQ 2 NZ Div 'A' and 'Q' Unit War Diary, July 1941' (ANZ)

to innovate in the hope that it would yield the elusive first success against Rommel's forces. He created a unique office of 'Intendant-General' to be based in Cairo, appointing General Robert Haining to this unusual office, which he "hoped would be able to relieve General Wavell of all the business of supply and technical administration... Thus the commanders would be freed from a mass of detail, and need think only of the fighting."¹⁸ The impact on Crump and the New Zealand Division of this unique office (which was never to be repeated, perhaps an indication of its lack of effectiveness) was indirect, as between Crump and this Intendent-General were the staff officers of the Royal Army Service Corps (RASC) in charge of Supplies and Transport at Corps and Army levels. But if Haining was to succeed as Churchill hoped, Crump should have been able to more reliably make use of rear-area supply depots. As this chapter will later demonstrate, Churchill's hope that 'commanders need think only of the fighting' was, however, flawed, as there was far too little consideration given to the vitality of forward resupply, which nearly fatally undermined Crump and the New Zealanders. The rear-area administrative arrangements around Cairo and the Suez Canal may have been satisfactory, but the provision of supplies to front-line units was the key to ensuring correct provision of supplies in both time and space, as will be shown.

The Allies should have enjoyed a considerable advantage over the Axis in terms of logistics and supplies in North Africa and the Middle East. That they did not until the arrival of Montgomery in mid-1942 is an indictment of the higher-level British army commanders. By late 1941, Rommel was reporting dire shortages of men, equipment and supplies, as he wrote to his higher command on 9 Nov 1941 (and intercepted by the Allied codebreakers):

The tempo of the transport of troops and supplies to North Africa has been reduced still more. To the end of October 1941, of the 60,000 tons of supplies promised by the Italians only 8,093 tons have reached Benghazi. Of those troops originally intended for the attack on Tobruk about one-third of the artillery and various important communications units will not arrive from Europe even by November 20. Furthermore, it is uncertain when the twenty 15.5cm guns brought from France in Tunis will arrive... Of the requested three Italian divisions for an attack in November only one will be available, and that below strength.¹⁹

By November 1941, Wavell had been replaced by General Claude Auchinleck, as Churchill kept pressing for the elusive victory. Auchinleck arrived to a very favourable situation in terms of

¹⁸ Winston Churchill, *The Second World War*, (Melbourne: Cassell, 1948), p. 274

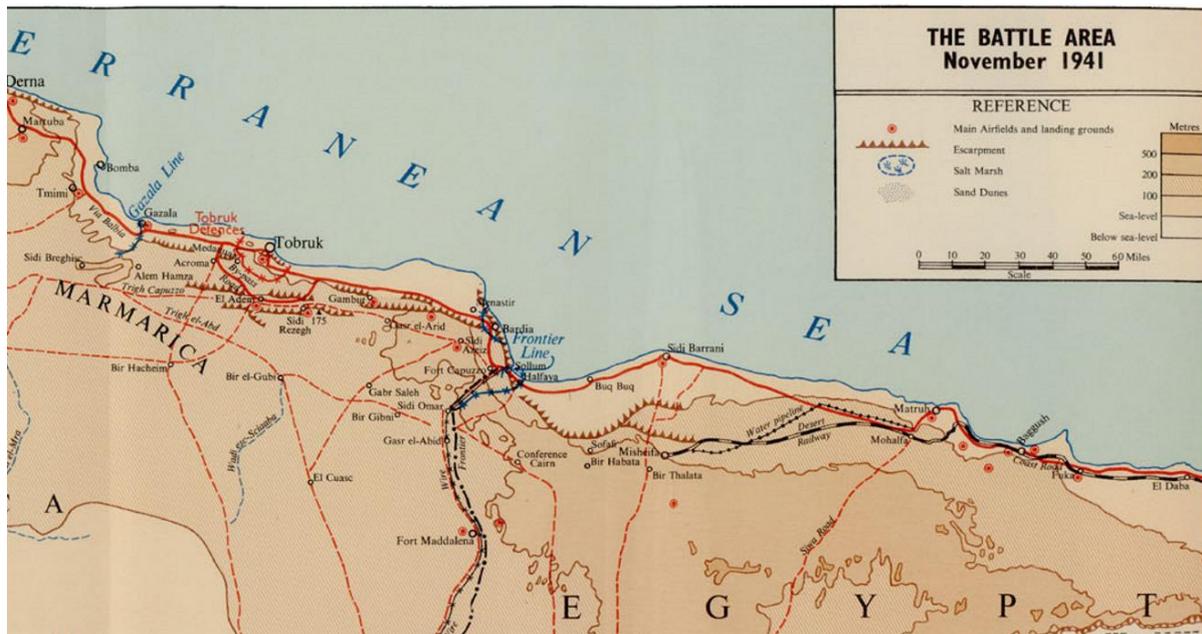
¹⁹ General Rommel to Oberkommando des Wehrmacht, Supreme Command of the German Army, 9 November 1941, quoted in Churchill, *The Second World War*. p. 432

mismatch of supplies, as described by Levine in his book *The War against Rommel's Supply Lines*. The Axis forces were severely hampered by both the Royal Navy and Royal Air Force from shipping supplies even the short distance from Italy to North Africa, and from July to October 1941 Italian shipping losses mounted. Towards the end of the year, 62 percent of all Italian cargo bound for North Africa was lost, and the only gasoline able to reach the shores of Libya was that carried in Italian navy combat ships. If losses had carried on at such rates, by early 1942 the Axis would have simply run out of supplies and thus been forced out of Libya.²⁰ The relevance of this to Crump and the NZASC was that there should have been a relative embarrassment of riches for the New Zealand Division and the other Allied formations in terms of supply and material. It should have been relatively simple for Crump to receive supplies, of which there was no shortage in Egypt, allowing him to focus on tactical-level replenishment for when the Division was in action.

Against this background of satisfactory Allied build-up of forces and supplies, and an increasingly dire situation for Rommel and his fuel-hungry armoured forces, it is little wonder that Churchill was pressing so hard for a victory. Therefore, the plans for Operation *Crusader* came about, with the intent to relieve the garrison isolated in Tobruk (consisting largely of the 70th Division) and drive the Germans and Italians out of Cyrenaica (Eastern Libya), and North Africa in general.²¹

²⁰ Alan J. Levine, *The War Against Rommel's Supply Lines, 1942-1943*, (Westport, CT: Praeger, 1999), p. 18

²¹ General Sir Claude Auchinlick, 'Despatch on Operations - 1 November 1941 to 15 August 1942', in John Grehan, Martin Mace, and Sara Mitchell (eds), *North Africa and the Middle East, 1939-1942: Tobruk, Crete, Syria and East Africa*, (Barnsley: Pen & Sword, 2015), p. 163

Figure 15: The Battle Area - Operation Crusader²²

The general plan for Operation *Crusader* was that the New Zealand Division, as part of the 13th Corps (commanded by Lieutenant General Reade Godwin-Austin, the rest of the corps comprising of the 4th Indian Division and the 1st Army Tank Brigade) would advance in the Northern part of their Area of Operations (AO) from the frontier, around Bardia and Sollum, simultaneous to an assault by the 30th Corps. The 30th Corps was largely an armoured formation, comprised of the 7th Armoured Division, the 4th Armoured Brigade Group, the 1st South African Division (two brigades only) and the 22nd Guards (Motor) Brigade.²³ The 70th Division and the 32nd Army Tank Brigade made up the Tobruk Garrison, alongside a Polish Carpathian Infantry Brigade Group. Auchinleck's approach to desert warfare in general and his specific plan for this operation called for brigades to operate independently, largely to the chagrin of New Zealand's senior officers who believed (justifiably) that divisions should fight as intact formations, enabling massing of artillery fires and greater concentration of force.²⁴ 5 Brigade was detached from the New Zealand Division and allocated to the 4th Indian Division, though Crump was still required to replenish it through the NZASC.

It is not the purpose of this thesis to narrate the events of the tactical battle in detail, but a brief overview is necessary to provide context to Crump's role. From 15 November, the New Zealand Division advanced as part of 13 Corps from the Egypt / Libya frontier, with 7th Armoured Division on

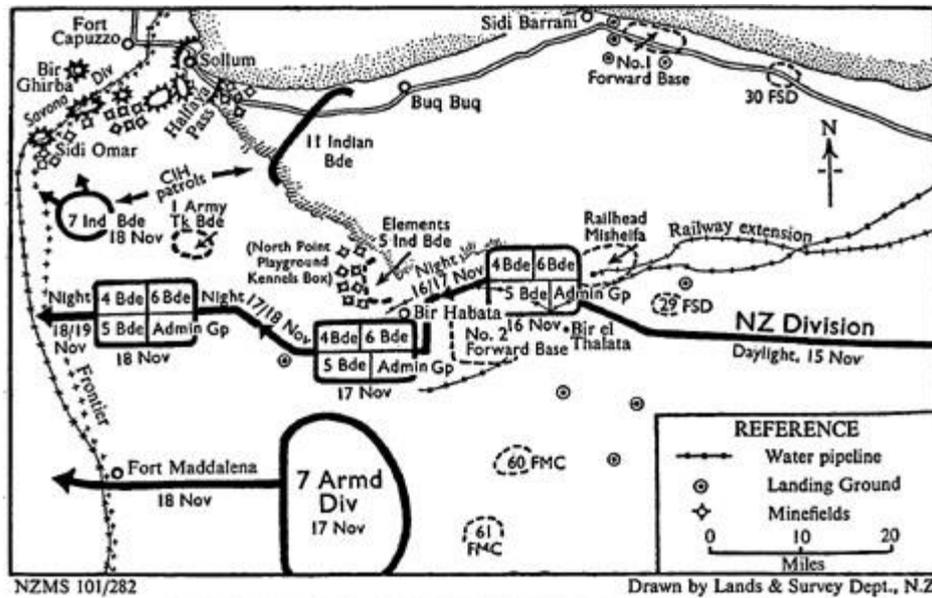
²² Murphy, *The Relief of Tobruk*, facing p. 19

²³ General Sir Claude Auchinleck, *Despatches from the Front*, p. 264

²⁴ Glyn Harper, *Kippenberger: An inspired New Zealand Commander*, (Auckland: HarperCollins, 2005), p. 134

its southern flank. By the night of 18 November, the division was located to the south of the German held forts at Sollum:

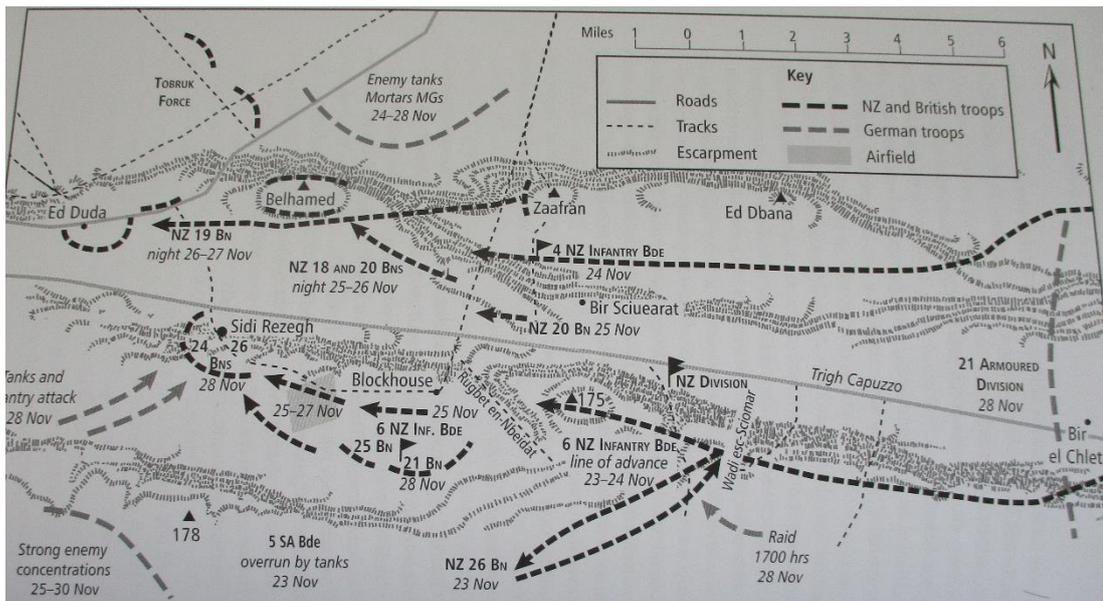
Figure 16: The Approach March, 15-18 November 1941²⁵



Following this approach march, the Division turned North, 5 Brigade detaching to the 4th Indian Division and fighting around Fort Capuzzo, with 4 and 6 Brigades conducting a simultaneous advance from 18 to 21 November to Trigh Capuzzo and Sidi Azeiz / towards Bardia:

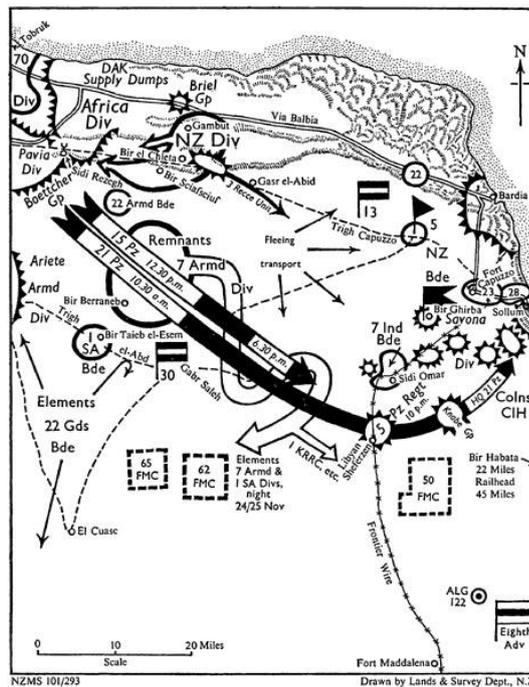
²⁵ Murphy, *The Relief of Tobruk*. p. 70

Figure 18: Advance of 4 and 6 Brigades, 23-29 November 1941



Rommel responded by launching a charge to the frontier on 24 November, which took some pressure of the New Zealand 4 and 6 Brigades, but also successfully cut off the New Zealand supply lines:

Figure 19: Rommel's Dash to the Frontier, 24 November²⁸



²⁸ Murphy, *Relief of Tobruk*, p. 210

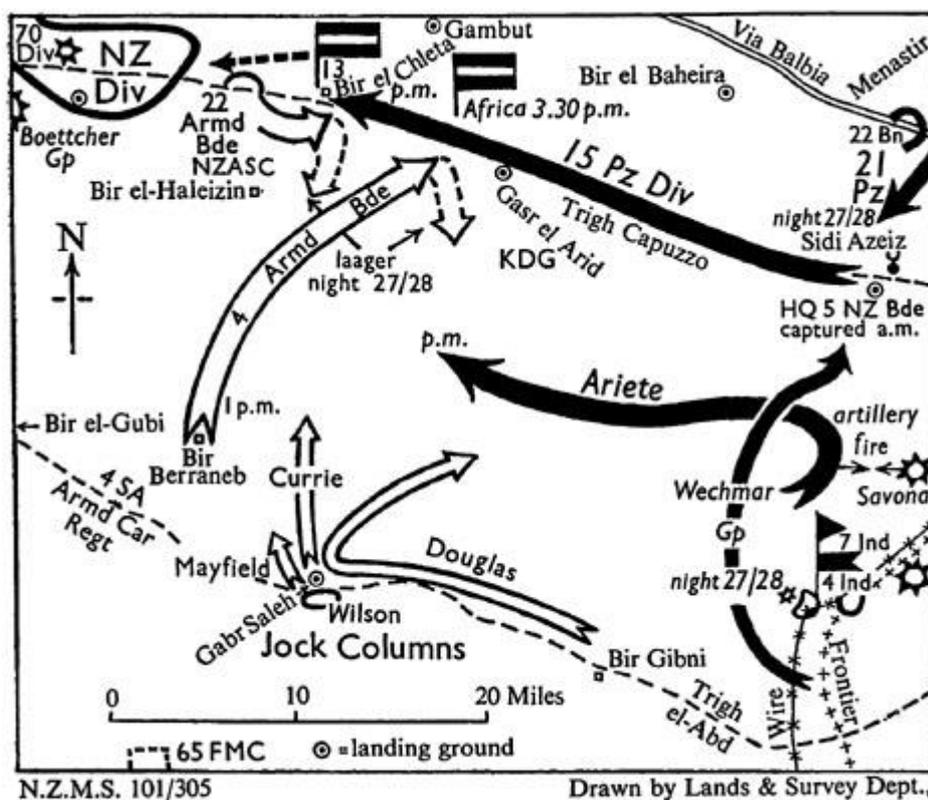
This raid by Rommel on the Egyptian frontier was of questionable strategic value, and was even more questionable from the point of view of sustainability. Field Marshal the Viscount Alexander of Tunis wrote after the war that although a “considerable body of legends” had emerged about Rommel and he was undoubtedly a very astute tactician:

I felt certain doubts, however, about his strategical ability, in particular as to whether he fully understood the importance of a sound administrative plan. Happiest when controlling a mobile force under his own eyes he was liable to over-exploit immediate success without sufficient thought for the future. An example was the battle of November 1941, when, after winning a great tactical success at Sidi Rezegh, he had rejected the advice of his two divisional commanders and dashed off on a raid to the Egyptian frontier which... led directly to the loss of sixty per cent of his forces.²⁹

A stark contrast between Axis and Allied forces in North Africa was the care and attention paid to military logistics. While Rommel claimed to be aware of the dire administrative situation he was in, his actions which served to only further extend his lines of communication seem to belie a more cavalier attitude.

By 27 November, the New Zealand Division had linked up with the Tobruk Force (70th Division), but Rommel now returned to the Tobruk Front, realising that his advance served little purpose other to leave him exposed:

²⁹ Field Marshall the Viscount Alexander of Tunis, ‘The African Campaign from El Alamein to Tunis’, *Supplement to the London Gazette*, 3 February 1948, p. 844

Figure 20: Rommel Returns to the Tobruk Front, 27 November³⁰

The New Zealand Division then came under sustained counterattack on the night of 30 November, sustaining heavy casualties and losing the ridge. Freyberg later recounted to the Prime Minister that 6 Brigade was forced off the Sidi Rezegh spur on the night of 30 November, with two battalions overrun. Freyberg reported that: "On the morning of 1 December attacks around both flanks of the 6 Brigade converged with 51 tanks on Belhamed... the already depleted 20th Battalion was overrun and a wedge was driven between our battalions... both Divisional headquarters and the 6 Brigade HQ narrowly escaped."³¹ The Division withdrew eastwards and then south from 1 December, concentrating back in Baggush.³² Casualties were very heavy for the Division for this operation, totalling 4,620 – 879 killed, 1,699 wounded and 2,042 captured.³³ These were the highest casualties of any campaign that the Division fought in the Second World War, and were in fact the highest of all Eighth Army divisions in that particular operation.³⁴ The outcome of the fighting was partially successful – the garrison at Tobruk was relieved, the Germans and Italians suffered very

³⁰ Murphy, *Relief of Tobruk*, p. 353

³¹ *Documents: Volume II*, 111 – General Freyberg to Prime Minister, 7 December 1941

³² Entry for 1 December 1941, in R23517360 'HQ 2 NZ Div General Staff, 1 June 1941 – 31 December 1941', (ANZ)

³³ Murphy, *Relief of Tobruk*, Appendix 1

³⁴ Cox, *Desert War*, p. 10

heavy losses, but they were not driven from Libya as was hoped for. The New Zealanders, once again, needed significant time to recuperate from an ill-conceived battleplan.

Crump's role in this operation was indeed vital, and it was only due to his ASC and a certain dose of luck that the Division escaped annihilation. Crump had to make particularly judicious use of his Petrol, Ammunition and Supply Companies, as his Reserve Mechanical Transport Companies were largely attached to 4 and 6 Brigades for the movement of their infantry.

The operation commenced well enough in terms of supplies, though the consumption of petrol was higher than anticipated due to the slow nature of moving the entire division at once – Crump was forced to report to Division HQ that due to trucks driving slowly and in low gear, all estimates for the consumption of gasoline had been exceeded. Corps HQ therefore diverted extra stocks of petrol to the Division on the night of 16 November. A high percentage of broken vehicle springs on that night also gave cause for alarm, taking out of action at an early stage several vehicles.³⁵ After crossing into Libya on 18 November, Crump's ASC made its first drawings from the forward supply depots that the Eighth Army had sited, unfortunately finding it not well stocked-up, sufficient for one day's consumption only. Crump himself personally visited '50 Forward Supply Depot (FSD)' on 19 November, and Division HQ was required to issue a warning to the New Zealand soldiers against the use of German tinned rations, as German soldiers were by then known to suffer from 'gastric trouble' thanks to their poor condition.³⁶

By 21 November, Crump and Division HQ were already aware of the risks posed by the tenuous state of supplies at Corps- and Army-level. The petrol situation was somewhat ameliorated through reserve stocks of fuel being carried by 4 and 6 RMTs (in addition to their troop-carrying tasks), but the fact that no more than one day's supply could be drawn from 50 FSD worried both Crump and Lieutenant Colonel Maxwell (the Divisional DA&QMG), who realised that if there was any disruption to supply lines, the Division would starve. This is exactly what happened when Rommel raided on the night of 24 November.³⁷

However, as the Division successfully captured Axis positions, the ASC was able to make use of captured enemy vehicles, which in turn were used to replace vehicles that had been lost earlier in

³⁵ Entry for 16 November 1941, in R26106642 'HQ 2 NZ Div 'A' and 'Q' Unit War Diary, October to December 1941' (ANZ)

³⁶ Entry for 19 November 1941, *ibid*

³⁷ Entry for 21 November 1941, *ibid*

the operation. Captured vehicles were also salvaged, springs and steel for springs being highly valued.³⁸

The supply of ammunition soon became critical. Division HQ recorded on 24 November that:

Extended and unprotected lines of communications is bringing its difficulties. Enemy raiding parties are reported to the South and ASC supply columns have been intercepted and dispersed... Interception of supply columns is upsetting ammunition supply. 5 Bde have located particularly good targets behind Halfaya but are at present prevented from engaging [them] owing to an insufficient margin of 25-pounder ammunition... Enemy tanks are reported east of the wire and have been firing on our columns.³⁹

The 25-pounder artillery howitzer was the biggest consumer of ammunition, not only in a supporting role for infantry assaults but also in a vital anti-tank role. Without it, the Division could neither attack Axis positions nor defend against Rommel's Panzers. This nature of ammunition was another example of Benjamin Franklin's 'horseshoe nail' for want of which the battle would be directly lost.

The New Zealand Division did all it could to procure more resupply from 13 Corps. No matter how well Crump trained his soldiers, nor how effective the control he exercised over them, they were useless unless they in turn could be supplied by the rear-area British Army Service Corps. Things became dire between 25 and 28 November in this regard. 50 FSD was overrun by Rommel's forces on 24 November, the Germans capturing not only vital supplies but also some air recognition flags which were to be used by the NZASC – the destruction of those air recognition flags meant that there were unfortunately two 'friendly-fire' attacks by the Royal Air Force on the NZASC later that day.⁴⁰ There was no word from Corps as to where supplies would come from on 26 November, and promised convoys never materialised on 27 and 28 November, nor did a promised aerial resupply by the RAF.

Enter a remarkably unsung New Zealand hero of this campaign on the night of 28 / 29 November – Colonel (later Brigadier) George Clifton, of the New Zealand Engineers. Clifton had been the Commander of Royal Engineers (CRE) for the New Zealand Division in Greece, but afterwards was promoted to be CRE for 13th Corps. Corps HQ had been working frantically to resupply the New Zealand Division, and they realised the serious situation of the New Zealand Division facing a pincer

³⁸ Entry for 22 November 1941, *ibid*

³⁹ Entry for 24 November 1941, *ibid*

⁴⁰ Entry for 24 November, *ibid*

movement with tenuous links (if any) to the forward dumps which were being “criss-crossed by Panzer columns.”⁴¹ Clifton recalled the words of the 13th Corps Deputy Adjutant and Quartermaster General, Colonel George Hatton:

Here's the form: [Freyberg's] crew are holding round Belhamed and Sidi Rezegh escarpment, stuck on the end of the corridor like a toffee-apple on its stick, and the good old Afrika Korps is biting them from all angles, except for the stick. Rommel is roaming round on their normal supply route from Egypt, and it's hellish difficult getting stuff out to them from Tobruk. The corridor is very 'iffy' to navigate by night and shot-up all day. You're taking in three hundred precious three-tonners loaded with everything, but mainly gun ammunition and water.⁴²

Clifton was escorted by a squadron of tanks and after an all-night drive dodging Panzer units encountered the first New Zealand units in the early hours of 29 November. The first eager customer was a British field artillery battery in support of the New Zealand Division, who were down to just ten rounds per gun. By the time Clifton arrived at the main location of the New Zealand Division, Brigadier Miles (Commander of Royal Artillery, New Zealand Division) greeted him enthusiastically, being down to only fifteen rounds per gun, and stated he could do with a hundred times that amount.⁴³ Crump's empty Ammunition Company rushed Clifton's loads out to the front-line units with great haste. Freyberg recorded in his diary that the convoy came at a critical moment in time, and that “the 25-pounder programme was at once stimulated.”⁴⁴ Clifton was immediately awarded a bar to his Distinguished Service Order (DSO) for commanding this convoy over not just such a long journey by distance and difficult terrain, but also under considerable threat from Rommel's armoured raiding forces. (Amusingly, Clifton had not yet been informed of his original DSO awarded for his conduct in Greece, therefore being notified of his bar served to surprise him with two prestigious awards.)

⁴¹ George Clifton, *The Happy Hunted*, (London: Cassell, 1952), p. 135

⁴² *Ibid*, p.140

⁴³ *Ibid* p. 143

⁴⁴ Entry for 28 November 1941, *Freyberg's War Diary*, NAM

Figure 21: *Convoy Under Shell Fire, Sidi Rezegh, Peter McIntyre, 1942*⁴⁵



At the same time as Clifton arrived with his convoy of over 260 vehicles, Crump was by now located in Tobruk with Rear Division HQ and most of his ASC, and had been assigned as Officer Commanding New Zealand troops in that port town. 13th Corps and Eighth Army HQ were well aware of the precarious nature of the New Zealand Division, as in addition to despatching Clifton and 260 trucks, they also dispatched a 700-Ton ammunition ship, which arrived as soon as ground link-up with Tobruk occurred. Crump wasted no time in unloading the ship and dispatching the ammunition to the artillery units, and so the Division was able to fight once more after not receiving any resupply for three days.⁴⁶

Writing after the war was over, Major General Lindsay Inglis (who was the commander of 4 Brigade during Operation *Crusader*) highlighted how dire the ammunition situation had been:

When infantry formations have to fight armour with their guns, the expenditure of 25 [pounder] ammunition is heavy; and the supply of shells was an anxiety throughout the campaign. The idea was that gun ammunition should come up regularly from the [Field

⁴⁵ 'Convoy Under Shell Fire, Sidi Rezegh, 13 March 1942', Peter McIntyre, watercolour, R22498071 (ANZ)

⁴⁶ Entry for 28 November 1941, in R26106642 'HQ 2 NZ Div 'A' and 'Q' Unit War Diary, October to December 1941' (ANZ)

Maintenance Depots]; but, after learning the “Crusader” plan, I was unhappy about the security of the supply and, wanting to take with us a much larger quantity of ammunition that we were planning for, suggested that we should acquire some of the captured 10-ton Italian diesels to carry it. Miles, from whom I could get no reasons but merely a reiterated assurance that ammunition would come up in the normal way, opposed the suggestion and carried his point, with the result that we often had good targets which we could not afford to engage and were more than once nearly out of shells. McKerche, 4 Field Regt [Quartermaster], did good work dodging enemy columns on his trips for ammunition, but what he could get in that precarious way was a dribble to what we needed. A lucky break, the arrival of an ammunition ship at Tobruk the night before we opened up communication with that port, saved us, and Clifton’s column helped us with another contribution; but by the evening of 1 December we were down again to 8 rounds a gun, a hopeless quantity with which to go on fighting armour.⁴⁷

Inglis further wrote to Kippenberger in 1952 (corresponding during the compilation of the official histories) that:

We never had enough [ammunition] to really whack Jerry. It was a constant curse having to husband the stuff and let targets go. I ran almost out of it twice. The first time was just when we opened up Tobruk. By the grace of God a ship with 700 tons of it had reached Tobruk the night before and we got some out of there. By the night of 1st December I was down once more to 8 [rounds] per gun and couldn’t have fought off armour another day – hence the necessity of slipping away that night.⁴⁸

Not only could Crump not get hold of enough ammunition for him to properly supply the New Zealand Division, but the campaign itself was chaotic and Crump had to overcome the ‘fog of war’ of moving mostly at night, through unknown terrain that had previously been held by the enemy, with insecure flanks and supply lines at the mercy of Rommel himself. The war diary entries for the Petrol and Ammunition Companies for late November tell a tale of chaos and uncertainty, which Crump had to somehow overcome. His company commanders reported portions of their companies needing to be detached for independent brigade operations, lines of communications being cut by tanks, convoys and positions being shelled by enemy artillery and convoys being turned away empty from forward supply dumps. Testament to Crump’s foresight, the Anti-Aircraft Regiment’s ASC

⁴⁷ ‘Comment by Major-General L.M. Inglis on Second Libyan Campaign’ in R12681219 ‘Correspondence concerning the Libyan Campaign of 1941’, (ANZ)

⁴⁸ ‘Letter from Maj-Gen L.M. Inglis to Maj-Gen Sir Howard Kippenberger, dated 22 January 1952’ in R12681219 ‘Correspondence concerning the Libyan Campaign of 1941’, (ANZ)

section was able to be surged to provide ammunition not only to its habitual 'parent' unit, but also to support the Division wherever needed with other ammunition natures - Crump's stubborn refusal to allow this section to fall outside his command bore fruit. The chaos for the ASC units only seemed to reduce when these companies were able to deploy into Tobruk directly under Crump and they were able to remain in a somewhat more centralised and secure location (albeit still subject to Luftwaffe attack) and receive direct replenishment via ship.⁴⁹

Despite the replenishment of ammunition on 28 November, supplies continued to dry up. It was not feasible for the New Zealand Division to remain so far ahead of support from flanking units which had not kept up (least of all tank support), nor could the division survive ahead of such extended supply lines. So, from 1 December, the Division withdrew back to the safety of Egypt. Crump remained in Tobruk until 7 December, and continued to play a key role for offloading supplies from further ships (pressing into action at the docks various ASC soldiers who were with him), but also loading wounded men on for evacuation and treatment. One such ship which Crump assisted loading the New Zealand wounded onto was the SS *Chakdina*, which sailed on the afternoon of 5 December to Alexandria, carrying 600 men, including 97 wounded New Zealanders. It was not designated as a hospital ship, therefore was a fair target for attack. Just after 9pm on 5 December, the ship was attacked from the air and sunk, drowning around 400 men, including 80 New Zealanders.⁵⁰ The 13th Corps Commander, Lieutenant General Godwin-Austin personally wrote to Crump on 6 December, offering his warmest thanks for his work in Tobruk offloading the ships for the entire corps, and stating that:

your Division by its gallant fighting and stand enabled the tide of the battle to be turned. The loss has been grievous but the situation would have been indeed grave had your men not stood as they did. I cannot say how dreadfully I feel with you in the loss of those who went down at sea. That was a blow so cruel as to be almost beyond bearing. That you should all have continued to work so cordially in the interests of the whole force is to me proof of the wonderful spirit you have always shown.⁵¹

The grief and frustration must have been incredible for Crump at this point in the war. He was observed to have been a 'changed man' after seeing the loss of so many of his soldiers in Crete earlier that year, and now the wounded New Zealanders he had personally overseen the evacuation

⁴⁹ Entries for 15-30 November, in R26220355 '1 NZ Petrol Company Unit War Diary – November 1941' and R26220284 '1 NZ Amn Company Unit War Diary – November 1941', (ANZ)

⁵⁰ W.E. Murphy, *2nd New Zealand Divisional Artillery*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1966), p. 290

⁵¹ Letter Godwin-Austin to Crump dated 7 December 1941 in R26220240 'HQ Command NZASC Unit War Diary – December 1941', (ANZ)

of through Tobruk had been cruelly killed so close to safety.⁵² Not only this, but the safety of the New Zealand soldiers was deeply personal for Crump at this point in time, as he now had two nephews serving as infantry officers in the 18th Battalion – Captain Noel Spencely Crump and Second Lieutenant Douglas Crump. Captain Noel Crump’s letters home to his parents frequently tell of meetings (sometimes work-related as he was for a time the battalion Quartermaster, but normally social visits) with Crump and the sage advice he received from him. He always wrote with a warmth and affection for his uncle, who in turn always passed his regards on to his family. To see New Zealand soldiers cut off from supplies and at the mercy of Rommel’s forces must have been a blow to Crump not only as a professional military logistician, but also as an affectionate uncle personally concerned for his nephews’ safety.⁵³

Although Crump and the remainder of the Division returned to the safety of Baggush by 8 December, rest for his units was difficult to come by. No sooner had his units arrived in Baggush than Crump was forced to report to Freyberg that not only had Petrol Company’s vehicles been taken from them to be used for the Eighth Army in general, but that the personnel of that company were to be used as second-line units in support of the Polish troops. This touched a raw nerve for Freyberg who detested ‘his’ New Zealand units being used by the British commanders for whatever reason they saw fit, to be ‘penny-packeted’ across North Africa as they had been in 1940, so he promptly sent a cable to Army Headquarters protesting strongly. The soldiers were soon returned to Crump for a well-earned rest.⁵⁴

There were to be learned several lessons of the campaign from Libya in 1941. In a pamphlet distributed to key commanders within the Division titled ‘*Lessons on the Campaign in Cyrenacia*’ in January 1942, the key lessons revolved around the ill-fated decision by the British commanders to deploy the Division as a binary division, that is with only two of its normal three brigades. This had consequences for Freyberg who could only constitute a minimal reserve, and thus be hampered in his ability to adapt to changing tactical situations or exploit success. Freyberg stated that “during the critical days of that fighting [in Sidi Rezegh and Belhamed] the only Divisional Reserve was one squadron of army tanks and one squadron of Divisional Cavalry. This inadequate reserve was partly due to the inherent weakness of the two-brigade division which will always find the maintenance of an infantry reserve a difficult problem.”⁵⁵ Not only was Freyberg hampered by this enforced dilution of his divisional assets, but so too was Crump as the CRASC. Crump had to dilute his companies to

⁵² Interview Julia Millen and John Calvin, 29 April 1996 ‘History of RNZCT’, Alexander Turnbull Library (ATL)

⁵³ Crump, Spencely Noel Stanley, 1916-1995: Letters to Family, (ATL)

⁵⁴ Entry for 10 December 1941, *Freyberg’s War Diary*, (NAM)

⁵⁵ B.C. Freyberg, *The New Zealand Division in Cyrenaica and Lessons of the Campaign*, p. 29, in R16700627 ‘Unexpurgated Copy of Report on Crusader, Libya’, (ANZ)

support independent brigade groups, such as supporting 5 Brigade as it was detached to the 4th Indian Division. That he still managed to surge his petrol and ammunition sections to where the battle needed them most is testament to his ability to command a very complex and chaotic situation.

Not all the lessons of the campaign were of gloom and poor performance – a key feature of the New Zealand Division, especially against their adversaries, was the ability to be mobile and manoeuvre across the wide-open and featureless desert spaces by night. Thanks to the diligent training of all drivers, especially in cross-country driving and navigation without lights by night, the Division could “move thirty-five miles in the dark without lights, hit a given spot, shoot in our field guns, and two and a half hours after first light stage a coordinated attack under a full artillery programme.”⁵⁶

The aftermath of Operation *Crusader* was that the New Zealand Division again suffered heavy casualties (heavier than at any other point in the war), once again under questionable tactical decisions from the British commanders. The lack of supplies, in particular 25-pounder ammunition, was not through want of effort or competence from Crump, rather it was despite his best efforts. But when the Corps and Army commanders did not pay enough attention to the security of forward supplies, as they clearly neglected to do in Operation *Crusader*, there is little that lower-level commanders such as Crump could have done on the front lines. When Crump had resources available, as he did when he took over operations in Tobruk, he quickly mustered all he could to save the Division from annihilation. One young artillery officer at the time, Leonard Thornton (later Lieutenant General Sir Leonard), observed many years later that the resupply on the 28 November, from both Clifton and Crump, saved the Division from certain disaster.⁵⁷ Operation *Crusader* was the first true test of the Division as a (mostly) intact force in the desert, and it had been found far from wanting, inflicting even heavier casualties on the Axis than it suffered. But if it was going to succeed, it was going to have to apply vital lessons, not the least of which would be a guaranteed supply of key stocks such as ammunition. Crump once again had to re-train, re-equip and re-stock his units so that men such as his nephews would not have to watch Rommel’s Panzers pass through their gun sites with empty barrels.

⁵⁶ Freyberg, *New Zealand Division in Cyrenaica*, p. 27

⁵⁷ Julia Millen, *Salute to Service: a History of the Royal New Zealand Corps of Transport and its Predecessors, 1860-1996*, (Wellington: Victoria University Press, 1997), p. 218

CHAPTER FIVE – The Quartermasters Decide the Battle

The first essential condition for an army to be able to stand the strain of battle is an adequate stock of weapons, petrol and ammunition. In fact, the battle is fought and decided by the Quartermasters before the shooting begins. The bravest men can do nothing without guns, the guns nothing without plenty of ammunition, and neither guns nor ammunition are of much use in mobile warfare unless there are vehicles with sufficient petrol to haul them around.

Erwin Rommel, 1944¹

The battles for North Africa from mid-1942 until the German and Italian capitulation in May 1943 provide an excellent case study of the impact which logistics has on mobile and modern manoeuvre warfare. In particular, the series of long tactical advances, resulting in stretched lines of communication, meant that the logisticians for each force became among the most vital commanders, as Crump became for the New Zealand Division. Clausewitz had already observed regarding supplies a century earlier:

The defensive is in a position [sic] to make uninterrupted use of the subsistence which he has been able to lay in beforehand, as long as his defensive act continues. The defensive side can hardly be in want of the necessities of life, particularly if he is in his own country; but even in the enemy's this holds good. The offensive on the other hand is moving away from his resources, and as long as he is advancing... must procure from day to day what he requires, and this can rarely be done without want and inconvenience being felt.²

During this period, the Allies were initially on the defensive, with the advantage of being able to 'fall back' on their own supply lines in Egypt, whilst Rommel overextended his supply lines. After fighting the successful static defensive battles at El Alamein, the Allies moved onto the offensive, with Crump's role being the difficult task of sustaining the New Zealand Division in a desert without any chance of local procurement, moving further and further away from bases of supply. That the New Zealand Division was able to conduct a series of complex flanking manoeuvres, almost never

¹ Basil Henry Liddell Hart (ed), *The Rommel Papers*, New York: Da Capo Press, 1982, p. 328

² C. von Clausewitz, *On War* (1874; Project Gutenberg, 2006), translated by Col J.J. Graham, <https://www.gutenberg.org/files/1946/1946-h/1946-h.htm>, accessed 15 April 2022, Book V, Chapter XIV

running out of fuel, water or ammunition, is testament to Crump's abilities as commander of the New Zealand Army Service Corps. Crump's command of the NZASC throughout this campaign is remarkable in how he overcame complexity of terrain, distance and enemy action to ensure that no New Zealand action ever failed because of want of supplies. An abbreviated timeline of the redeployment from Syria, defensive battles and the pursuit (including three 'left hooks') is as follows:

Table 4: Summary of Events, North Africa, June 1941 – January 1942

26 Feb 42	First elements of Division move to Syria
22 Mar 42	Division completes move to Syria, commences training and defensive duties
Apr 42	Divisional exercises continue
3 May 42	Ceremonial Parade of NZASC, first occasion entire command together in one place
14 Jun 42	New Zealand Div ordered to return to Egypt
20 Jun 42	Division arrives in Matruh
26 Jun 42	New Zealand Division (less 6 Bde) ordered to secure box in Minqar Qaim, occupies that evening
27 Jun 42	Freyberg wounded by shell splinter, Inglis assumes temporary command
27-29 Jun 42	Division conducts breakout at Minqar Qaim during night, moves to Alamein during day of 28 Jun, concentrates in defensive positions 29 Jun
4 Jul 42	5 Bde attack on El Mrier depression
14 Jul 42	New Zealand Div ordered to attack and capture Western end of Ruweisat Ridge (4 and 5 Bdes). Attack commences that evening,
15-16 Jul 42	Battle of Ruweisat Ridge ends in failure, remnants of brigades concentrate at El Alamein positions
18 Jul 42	New Zealand Div regroups, 6 Bde becomes divisional reserve
21-22 Jul 42	Second battle of Ruweisat Ridge, 6 Bde attacks El Mreir depression. Bde HQ overrun, Brig Clifton temporarily captured. Heavy losses.
23 Jul 42	Div reorganises in defensive positions at El Alamein
30 Aug – 5 Sept 42	Battle of Alam Halfa
23 Oct – 11 Nov 42	Second Battle of El Alamein
11 Nov – 11 Dec 42	Reorganisation at Bardia
12 – 15 Dec 42	Left Hook, Agheila
17 – 18 Dec 42	Left Hook, Nofilia

20 – 28 Mar 43	Left Hook, Mareth Line (Tabega Gap)
14 May 43	Surrender of Axis Forces, North Africa

The campaign begins with the aftermath of Operation *Crusader*, the costliest action for New Zealand in the war to date, which meant that the Division had to quickly absorb reinforcements and was then ordered to deploy to Syria. Freyberg was glad for the opportunity to redeploy to Syria. He remained strongly opposed to his higher commanders' insistence on either using brigades independently, or else divisions with only two brigades. When he reached Syria, Freyberg voiced those concerns to General Archibald Nye (Vice Chief of the Imperial General Staff), who agreed with his opposition and said that it was an idea from the Indian Army which had found its way to the British Army.³

The higher-level strategic decisions and politics about deploying the New Zealand Division to Syria did not concern Crump. He was no doubt grateful, like the other commanders, for an opportunity to reequip, reinforce and retrain, even if there was the remote threat of German divisions breaking through the Caucasus or Turkey to that part of the Middle East. For starters, it was the first opportunity to have his entire command on parade – up until that point in the war, his ASC had always been dispersed amongst the Western Desert formations, or else operational requirements had prohibited his troops from gathering in one place at one time. Following the parade on 3 May 1942 Freyberg wrote to Crump that:

On Sunday last, I inspected for the first time the whole of the NZASC of the Division.

I wanted to tell you how very impressed I was with the parade... especially as I know the difficulties under which you all work, being split up with motor transport all over the country and rarely coming together for a large parade...

I want also to say here that the record of the NZASC stands very high with the rest of the Division. We all know what we owe to the Res MT and ASC Companies and their great devotion during the campaigns in which the Division has played its part.

Lastly, I want to congratulate you and your officers for bringing this force to the high standard of efficiency which it has reached.⁴

³ Freyberg's Diary, 29 March 1942, (NAM)

The Division's time in Syria was to be short, as much as it was filled with exercises and continued preparation of defences in case of German attack from the North. On 14 June 1942, the Division sent a Warning Order (WNGO) out to move back to Egypt. Rommel had recommenced his advance, and with a large amount of success too. By 22 June, Freyberg informed his commanders that Tobruk had fallen, with the regrettable capturing of the great bulk of supplies in that port undamaged. The ASC was immediately up to the task of moving the Division, creating what Crump claimed as record in the British Army by moving the entire Division from Aleppo in Syria to Mersa Matruh in Egypt in just five days.⁵ Middle East Headquarters had been expecting that ten days or more would be required to concentrate the Division in the desert – Scoullar in the New Zealand Official War History credited the “excellence of the staff work, the physical fitness and discipline of the units and the high standard of maintenance in the Division's ageing transport” as the reasons for the rapidity of this move.⁶

Travelling through Egypt, Palestine and Syria, Crump traversed the very same ground that he served in 24 years earlier in the First World War. Crump was remarkably unforthcoming about his experiences in that war, never once discussing them with anyone in the officers' mess.⁷ Regardless, the challenges of sustaining desert warfare were familiar to Crump, the only modification being the requirement to feed petrol to vehicles in place of fodder to horses. But the challenges of fresh water, unspoiled food, ammunition and other supplies being required over long distances of unforgiving terrain had been met by him whilst serving the New Zealand Mounted Rifles Brigade in the exact same location twenty-five years earlier. Of the senior New Zealand officers who had served in the First World War, Crump was a rarity in that he had served mostly in the Middle East and not the trenches of France and Belgium.

The situation in North Africa when the New Zealanders returned there was not promising. Tobruk fell on 22 June, before the South Africans had been able to destroy supplies or the port itself. Rommel was able to capture a “great bulk of supplies undamaged”.⁸ Crump held a conference with his commanders on 24 June, describing the situation and the tasks for the NZASC. A high priority was getting fully back up to war establishment, as his units were still about 150 vehicles short. This was

⁴ Letter Freyberg to Crump dated 10 May 1942 in R26220245 'HQ Comd NZASC Unit War Diary, May 1942', (ANZ)

⁵ Memo Crump to Freyberg, 'Rough Notes re NZASC Functions' dated 25 October 1944, in R16700657 'NZASC Reports, ASC in Italy' (ANZ), Entries for 14-23 June 1942 in R26220246 'HQ Comd NZASC Unit War Diary, June 1942', (ANZ)

⁶ J.L. Scoullar, *Battle for Egypt*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1955), p. 52

⁷ Selwyn Toogood, interview with Julia Millen, October 1995, (ATL)

⁸ Freyberg's Diary, 23 June 1942, (NAM)

achieved alongside the task of ‘bombing up’ the Ammunition Company which was also short on ammunition after the short-notice move from Syria – Crump tasked Captain Toogood to bring forward the deficiencies of the ammunition on the new vehicles to Matruh.⁹ This enabled Crump to ensure that when the New Zealand Division marched out from Mersa Matruh on 25 June, it was doing so with three days’ reserve of rations and water and a full complement of second-line ammunition held in his ASC units. There was, in fact, a surplus of ammunition, 4000 rounds of 25-pounder ammunition which was regrettably destroyed when the Division left as there was no space to take it, and the tactical situation meant that the Germans were soon to occupy that ground.¹⁰

The decision to move the New Zealand Division South of Mersa Matruh was a tactical one as Freyberg wished to occupy a position better suited to a mobile defence. In order to achieve total mobility for his Division, Freyberg decided to strip 6 Brigade of its transport and allocate it to the other two brigades. 6 Brigade therefore was sent eastward to Amiriya, while the binary Division became a fully-mobile Division, a unique feature in the 8th Army.¹¹ Freyberg selected the area at the escarpment where he assessed there was room to manoeuvre and to use the powerful New Zealand guns “to the full”.¹² The details of defensive plan for the Eighth Army were not effectively passed on to the New Zealand Division, who remained under the impression that there would be a holding battle at Mersa Matruh. Freyberg was unaware that the remainder of the Army was withdrawing to the Alamein line,¹³ so by 27 June, 21 Panzer Division was able to successfully envelop the entire Minqar Qaim position with minimal resistance from the formations flanking the New Zealand Division.

On the night of 27 June, Freyberg was wounded with a shell splinter to the neck, necessitating Brigadier Lindsay Inglis to step up as acting division commander. Freyberg had already ordered the withdrawal of the Division to occur that night, but by the time Inglis took over, the situation was becoming dire, with the New Zealand field artillery down to just 30 rounds per gun.¹⁴ The breakout was chaotic, as only can be expected from an understrength division surrounded by an enemy and cut off from flanking units. Fortunately, the Germans also appeared to have been taken by surprise.

⁹ Entries for 23-25 June 1942 in R26220246 ‘HQ Comd NZASC Unit War Diary, June 1942’, (ANZ)

¹⁰ Entry for 27 June, *ibid*

¹¹ Scoullar, *Battle for Egypt*, p. 57

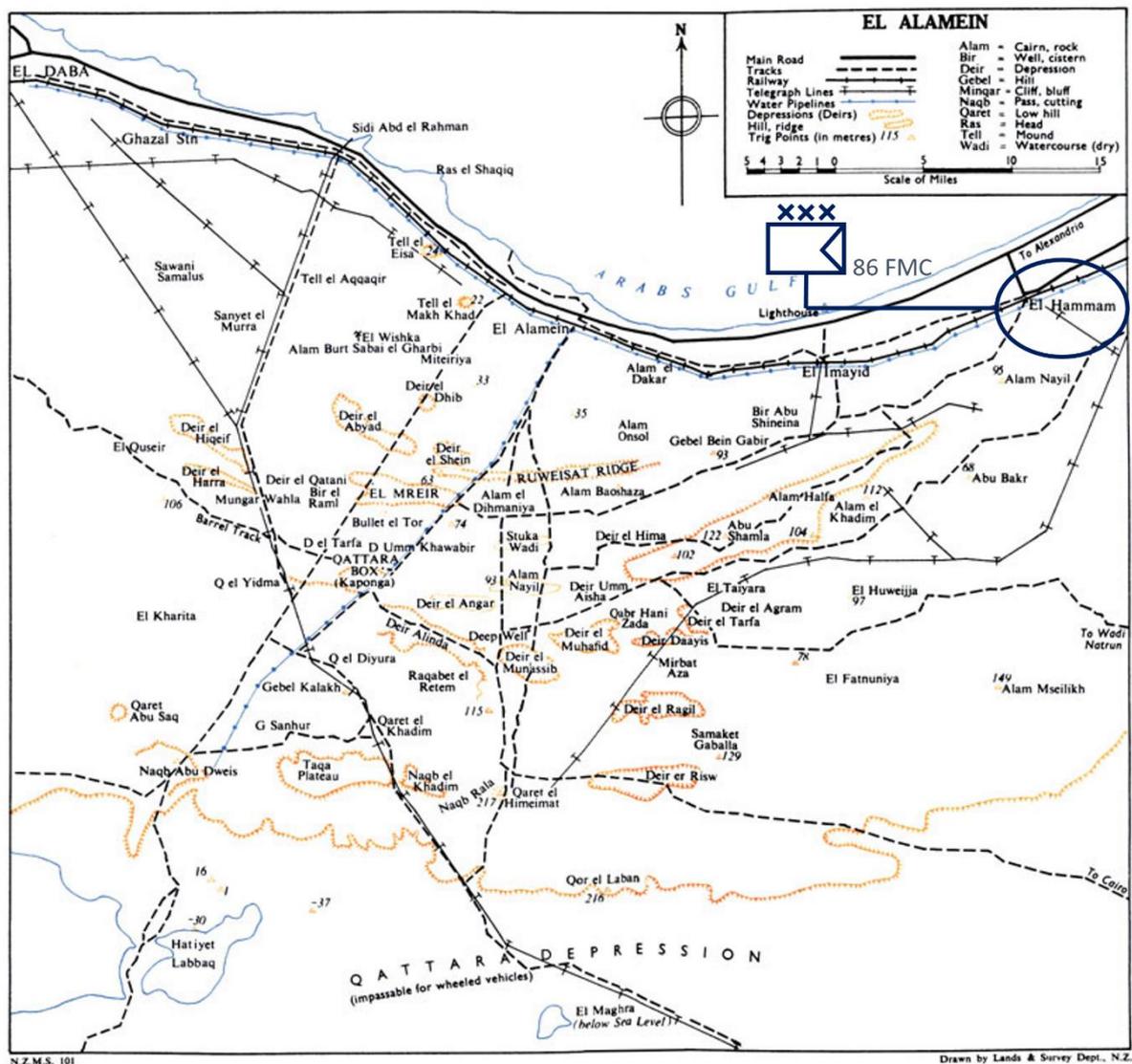
¹² Freyberg, message to NZ Prime Minister Wellington, 24 June 1942 in R16700629 ‘Miscellaneous Reports etc, Minqair Qaim-Ruweisat Ridge’ (ANZ)

¹³ Glyn Harper, *The battle for North Africa: El Alamein and the turning point for World War II*, Bloomington: Indiana University Press, 2017, p. 28

¹⁴ Lindsay Inglis, entry for 27 June 42, in Freyberg’s Diary (NAM)

was located at El Hamman, only 15 miles to the east of Ruweisat Ridge by rail and road towards Alexandria. As Clausewitz observed by what he called the ‘culminating point of victory’, it was to prove far easier for the Eighth Army to collapse on its supply lines in their defensive phase of war than it was for Rommel to continue his advance over ever longer lines of communication. Therefore, whilst the Eighth Army had to contend with numerous tactical and operational challenges, Crump’s task became simpler as his companies had shorter distances to cover in the rear areas. The following map shows the close proximity of the 86th FMC at El Hamman:

Figure 23: El Alamein, July 1942¹⁸



Whereas Rommel could only lament about the impossible logistic situation he now faced:

¹⁸ Scoullar, *Battle for Egypt*, p 135

My Panzer Army had now been five weeks in battle against superior British forces. For four of those weeks the fighting had raged backwards and forwards in the foreground of Tobruk. We had succeeded, partly by attacks with limited objectives, partly in defence, in wearing down the British forces...

This series of engagements had brought the strength of my Army to the point of exhaustion. With our reserves of material – including the immediately usable booty – beginning to run out, it was only the men's amazing spirit and will to victory that kept them going at all. Not only had no replacement material arrived, but, with an almost unbelievable lack of appreciation of the situation, the supply authorities had actually sent only three thousand tons to Africa during June, as compared with our real requirement of sixty thousand tons, a figure which was never in fact attained.¹⁹

Rommel and his quartermasters did what they could, including making best use of captured enemy vehicles. Up to 85 per cent of Rommel's transport consisted of captured enemy vehicles, a tactic copied by the Allies at the time as well.²⁰ For example, the truck in the following photo was captured by the Germans in Greece in May 1941, before being recaptured by the New Zealanders in December at Tobruk and received back into service - the Germans had not even removed the silver fern marking it as a vehicle of the New Zealand Division.

¹⁹ Rommel, *Papers*, p 243

²⁰ Rommel, *Papers*, p 245

Figure 24: Three Ton Lorry recaptured by New Zealand Division, Tobruk, December 1941,²¹



Rommel launched an attack on 1 July against the strengthened Alamein line, which was by no means an impenetrable fortress along its forty miles. Inglis continued to command the Division under Lieutenant General Willoughby Norrie, with Auchinleck attempting to construct a series of defensive boxes between the impassable terrain to the south and the coast to the north.

Rommel attacked with a weary army on 1 July, beginning what became known as the First Battle of El Alamein, which lasted most of that month. Crump's role in that defensive battle was to ensure that the brigades of the New Zealand Division never ran out of supplies as well as to transport the infantry around the battlefield. This was frustrating at times as the ever-changing tactical situation required the demolition of ammunition and stores in defensive positions which were to be given up.²² The Division fought on the key terrain of the El Mrier Depression and Ruweisat Ridge. The battles were to be recalled later by New Zealand commanders with bitterness at the lack of cooperation with British Armoured units, which came at great cost to the New Zealand Division. Inglis recorded in the GOC's diary about the fighting on Ruweisat Ridge on 15 July: "no

²¹ Department of Internal Affairs: War History Department. *New Zealand Truck Captured in Greece Recaptured in the Libyan Advance*, photograph, 20 December 1941, World War 1939-1945 official negatives – DA-02269B-F, <https://tiaki.natlib.govt.nz/#details=ecatalogue.531984> (ATL)

²² Inglis, entry in Freyberg's Diary for 8 July 1942 (NAM)

tanks of 2 Armd Brigade which should have been on this ground at daylight were anywhere near".²³ The fighting at Mrier and Ruweisat was very costly for the New Zealand Division and the Eighth Army overall, which lost 14,000 men.

Crump's role in sustaining the New Zealand Division during these defensive battles was critical. Huge quantities of ammunition and defensive stores were required not just for the New Zealanders, but also various units of the British Army who were at times attached and then detached. One significant challenge was supporting British medium artillery units, whose 5.5 inch calibre ammunition required particular consideration for how to supply without compromising support to the remainder of the New Zealand Division. Throughout July as the first battle of El Alamein raged, Crump continued to adapt and supply heavy demands of ammunition in particular, even in the face of sustained enemy attack. On 14 July, the Luftwaffe discovered a replenishment area to the rear of the defensive positions, launching a dive bombing attack which killed 14 New Zealanders and wounded 40. Crump had been a hard disciplinarian for maintaining dispersion in such areas so that his ASC could be better protected, and to his credit this attack largely spared his men. The casualties instead largely came amongst the 1st line vehicles and soldiers of the units as they awaited uplift whilst neglecting to remain dispersed.²⁴

²³ Inglis, entry in Freyberg's Diary for 15 July 1942 (NAM)

²⁴ Entry for 14 July 1942 in R26220247 'HQ Comd NZASC Unit War Diary, July 1942', (ANZ)

Figure 25: Petrol Dumps burning in Egypt, photo taken by Sir John White, 15 July 1942²⁵



Crump also innovated and simplified replenishment routines, as it became obvious that constant traffic in and out of replenishment areas, in the dark, with no white light permitted and no radio communications, led to confusion and congestion. Therefore, he standardised the layout of a replenishment area, so that four quadrants would be set up (one each for water, rations, fuel and ammunition) in a consistent layout and with a front boundary line to be set up parallel to the front taken up by the Division. This pattern was known by all and repeated frequently, so that when units came to pick up supplies, they merely needed to find the corner or entry point of the replenishment area and from there they were able to relatively easily navigate to the correct location to uplift their supplies.²⁶

Standardising replenishment points was not the only development that Crump's ASC undertook at this time. Captain Selwyn Toogood, Crump's ammunition officer in HQNZASC (later to become the famous television broadcaster) adapted how Ammunition Company vehicles operated at and in between ammunition points. It was not tenable for individual vehicles to traverse rear

²⁵ Department of Internal Affairs: War History Department. *Petrol Dumps Burning in Egypt*, photograph taken by Captain John White, 15 July 1942, War War Two 1939-1945, DA-02563-F [ATL: Unpublished Collections \(natlib.govt.nz\)](#) (ATL)

²⁶ HQ NZ Div Order dated 2 July 1942: 'Replenishment' in R26220247 'HQ Comd NZASC Unit War Diary, July 1942', (ANZ)

areas of the Western Desert and Egypt as soon as they were emptied of their loads by customer vehicles – individual vehicles or pairs of vehicles would become separated from their platoon, and the command and control of the entire company would quickly breakdown. But it was also not tenable to wait for an entire platoon (of 30 three-ton vehicles) to be emptied of their loads before they travelled as a convoy to a corps-level Field Maintenance Centre – the time it took for this to occur inevitably resulted in delays and congestion at rear areas. Therefore, Toogood instituted a standardised vehicle loading system for the company, with three of the four platoons loaded with all natures of ammunition, and one platoon loaded solely with 25 pounder artillery ammunition. The company established the ammunition point (being one quadrant of the greater ASC replenishment point as described above) with one platoon of mixed ammunition servicing first line units, the other two standard platoons and the artillery ammunition platoon holding in the neighbouring company area. When any vehicles were relieved of their loads in the replenishment area, they travelled to the company area and refill. This way the platoon servicing the divisional ammunition point remained filled, with vehicles all belonging to the same platoon for ease of command and control. Artillery ammunition resupplies were forecast and, if anticipated, the platoon holding the artillery ammunition was sent forward as required to bolster the mixed holdings of the forward platoon. Company HQ could then send convoys from the ammunition point to the rear as needed, ensuring a reliable flow of ammunition to the point whilst maintaining effective control of sections and platoons as whole units.²⁷

The fighting continued into August 1942, the New Zealand Division being tasked with defending in the vicinity of Alam Halfa. Crump was by now observing that the quality of bread being issued to the soldiers was particularly poor, despite the short lines of communication from rear area bakeries and supply depots. However, a more pressing priority was supplying the various ammunition dumps, including for flanking formations and units not normally integral to the New Zealand Division – a repeated challenge was any British medium artillery requiring 5.5 inch calibre ammunition. Crump instituted daily conferences with his company commanders, though was at times limited to once every two days due to the distances his ASC was dispersed across. His company commanders never lacked information about who they were supplying and with what, despite the challenge of frequently redeploying around the rear areas so as not to provide a static target for the Luftwaffe.²⁸

²⁷ 'Report on the Supply and Replenishment of Ammunition during the Period of Active Operations, 27 June 1942 to 11 September 1942' from Capt S. Toogood to Commander NZASC, dated 16 October 1942, in R26220249 'HQ Comd NZASC Unit War Diary – September 1942' (ANZ)

²⁸ Entries for 17-25 August 1942 in R26220248 'HQ Comd NZASC Unit War Diary, August 1942' (ANZ)

The eventual lack of success for the New Zealand Division at Alam Halfa has been the subject of much writing and debate. By now, Bernard Montgomery had replaced Claude Auchinleck as Army Commander, thus finally putting to an end any desire by British commanders to split divisions up into brigades and fight the battle with a greater number of weaker formations. As part of Montgomery's initial actions in and around Alam Halfa, Operation *Beresford* was the New Zealand Division's planned operation against Italian positions on 3-4 September, but the attack was a costly failure. The two infantry Brigades in use (Kippenberger's 5 Brigade and the attached British 132 Brigade) as part of Montgomery's cautious counterattack failed to take sufficient ground and eventually petered out. Of all the blame and finger pointing from various British and New Zealand commanders and historians ever since, not one assertion has ever been made that the New Zealand Division failed to take enough ground for want of supplies or logistics.²⁹ By early September 1942, it is fair to say that Crump's ASC was functioning exceptionally well, adapting to multiple additions or subtractions from the New Zealand Division order of battle and ensuring that all demands for petrol, food, water and ammunition were met.³⁰

By 10 September 1942, Freyberg could see that his Division was close to exhaustion, having been fighting in constant battles since the return from Syria. Orders were given for the New Zealand Division to move to a training area on 19 September, allowing for some respite on leave. Exercises were to begin later that month. Before retraining, however, there was a welcome opportunity for reorganisation, taking into account two factors – the heavy casualties which 4 Brigade had sustained particularly at Ruweisat Ridge, and Freyberg's strong desire (or, more accurately, his insistence) on armour coming under his command to prevent any repeats of armour failing to support infantry to a sufficient degree.³¹ There had been many questions and discussions between Freyberg and his superiors in Wellington regarding an armoured brigade, with the War Cabinet also having to consider home defence, the structure of the NZEF in the Pacific (the 3rd Division) and how to maintain steady reinforcements to replace losses in North Africa.³² Eventually, it was decided to send 5500 men, including one complete tank battalion, to the Middle East, and 4 Brigade was converted to an armoured formation.³³ The conversion of 4 Brigade from infantry to armour would take some time, at least several months, therefore it was also agreed that the British 9th Armoured Brigade be

²⁹ Glyn Harper, *Kippenberger – An Inspired New Zealand Commander* (Auckland: HarperCollins, 2005) pp 179-180

³⁰ Entry for 3 September 1942 in R26220249 'HQ Comd NZASC Unit War Diary, September 1942', (ANZ)

³¹ Niall Barr, *Pendulum of War, The Three Battles of El Alamein*, (London: Jonathan Cape, 2004), p. 265

³² Edward Puttick, '85 – Chief of General Staff to Freyberg, 16 August 1942', in *Official History of New Zealand in the Second World War 1939-1945: Documents Relating to New Zealand's Participation in the Second World War 1939-45: Volume II*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1951), p. 62

³³ Edward Puttick, '89 – Army HQ to HQ 2 NZEF, 31 August 1942' in *Documents, Volume II*, p. 66

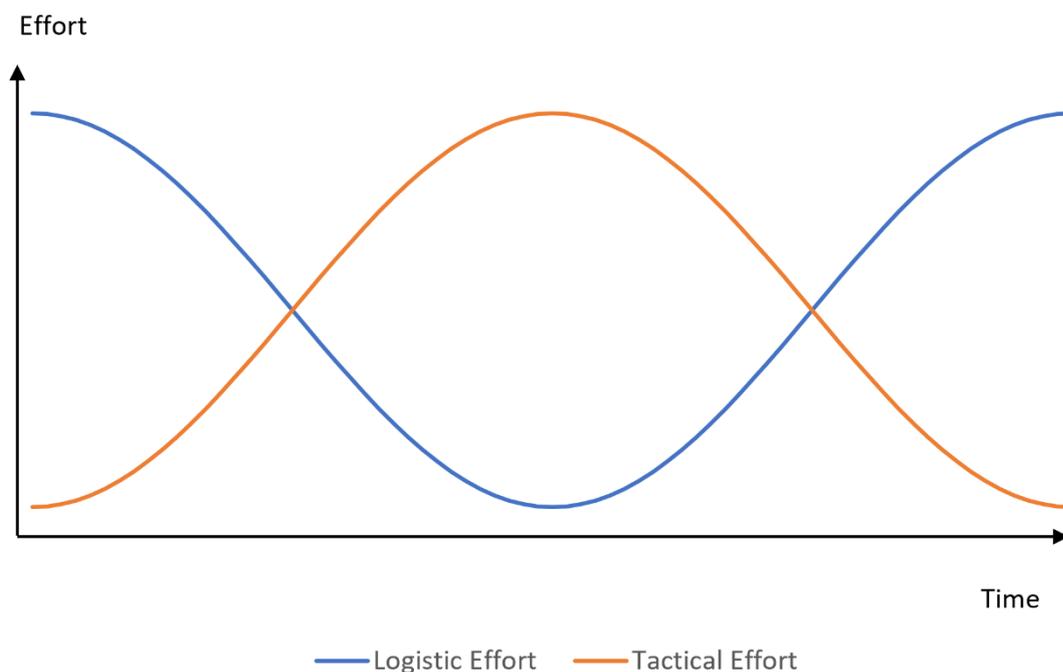
attached to the New Zealand Division.³⁴ This Division now consisted of two infantry brigades and one armoured brigade, the most mobile and potent division of the entire 8th Army. Its mobility and potency was by now well underscored by the modifications that Crump had successfully sought for the ASC – two transport companies (4 and 6 RMT) in place of the standard single company meant that both infantry brigades could be transported simultaneously by lorry swiftly and efficiently, whilst the remainder of the ASC could ensure that petrol, ammunition, food and water were in constant flow. The 9th Armoured Brigade was fully integrated into the Division, including its resupply matters, so that for the forthcoming battle of El Alamein it was the only armoured formation in the desert to take all its allotted objectives.³⁵

The Division trained in earnest throughout the remainder of September and October, preparing to fight the highly staged and pre-planned battle of El Alamein which Montgomery was organising. At this point in time, we can see a useful illustration of how a well-functioning military logistics command integrates with the tactical plan. Timing of effort between the two concepts must be integrated so that for a tactical action to succeed, there must first have been a focussed effort of logistics to prepare the fighting forces. Rates of high effort cannot be sustained for either fighting forces or logistic elements, therefore, following high effort, rest and recuperation must be allowed, prior to effort scaling up again. Poor planning in either logistics or sustainment will result in high rates of effort occurring at the same time, allowing for neither one nor the other to be prioritised, also resulting in supplies arriving either too late or not at all. The following graph of effort illustrates this concept, which Crump and Freyberg were now successfully following:

³⁴ Barr, *Pendulum of War*, p. 266

³⁵ Harper, *Kippenberger*, p. 182

Figure 26: Relative Rates of Effort, Tactics and Logistics



In particular, whilst the Division was training in September and October, Crump and his ASC turned their attention to the dumping program for the massive artillery bombardment that was a key part of the forthcoming Second Battle of El Alamein. He and his key staff officers liaised with Corps and Army HQ to detail the dumping program, followed by a deliberate administration exercise to test and develop how this dumping program could be achieved. Crump devised a plan for the New Zealand ASC to uplift ammunition from Burg El Arab and deliver it to the gun lines around El Alamein. He was required to do so by night, allowing time for the ammunition to be unloaded, dug in and camouflaged, and the correct quantities of each nature to be delivered to the correct location, with HQ maintaining accuracy of data of what ammunition had been delivered to what location. This had to be done without the benefit of modern communications and information systems. The requirement was for the 72 guns of the New Zealand field regiments to be supplied with the following quantities: 'High Explosive' (HE), 452 rounds per gun, 'Smoke', 52 rounds per gun, 'Charge III', 376 rounds per gun and 'Super' (Anti-Tank), 128 rounds per gun.³⁶ This was a total of 111,744 rounds. The plan that he and Captain Toogood devised was for the 72 available New Zealand ASC vehicles to be loaded in one of three configurations, carrying a set amount of each type of ammunition. Not only did Crump and Toogood match the number of ammunition-carrying lorries with the number of guns to be supplied, but by configuring three different layouts, they were able to

³⁶ 'Operation Order No. 1A by Colonel S.H. Crump, Commander NZASC' dated 8 October 1942, in R26220250 'HQ Command NZASC Unit War Diary – October 1942', (ANZ)

match the requirements of each troop which consisted of three guns, each vehicle carrying the requirement for one of the three guns for each troop, as follows:³⁷

Figure 27: Loading Tables, Ammunition Company, October 1942

Vehicle	Type	Nature	Rounds Carried
Vehicle A	25 pdr Shell	HE	168
	25 pdr Cartridge	Charge III	128
		Super	40
Vehicle B	25 pdr Shell	HE	144
		Smoke	24
	25 pdr Cartridge	Charge III	120
		Super	48
Vehicle C	25 pdr Shell	HE	140
		Smoke	28
	25 pdr Cartridge	Charge III	128
		Super	40

In this configuration, one troop's requirement of ammunition was delivered each night by a 'block' of three vehicles. It was slightly under the carrying capacity for each three-ton lorry, but the simplicity of this plan meant that each troop commander could guide a 'block' of three vehicles on one night to receive the entire complement of ammunition for the forthcoming battle. HQ was able to track the delivery of ammunition by knowing how many vehicles went to each gun position. Furthermore, each driver was familiar with each nature of ammunition due to the standardised configuration. Over four nights from 10/11 to 13/14 October, Crump's Ammunition Company successfully conducted this dumping program, the gunners and NZASC drivers cooperating each night to unload, dig-in and camouflage each gun's ammunition so as not to breach operational security requirements.³⁸ If the Second Battle of El Alamein was a success due to the heaviest artillery bombardment of the North African campaign, then Crump's ASC was a critical enabler of that success.

³⁷Report by Capt Selwyn Toogood - '25 pdr Dumping Program for 2 NZ Div prior to the Offensive, Western Desert, October – November 1942', dated 22 November 1942 in R26220250 'HQ Command NZASC Unit War Diary – October 1942', (ANZ)

³⁸W. E. Murphy, *2nd New Zealand Divisional Artillery*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1966), p. 379

In addition to dumping the vital artillery ammunition (and ensuring it was the right quantity in the right configuration in the right place), Crump also ensured that petrol was dumped for each unit, and that vehicles were on hand to rapidly respond to any change in the tactical situation. For that, he constituted what was labelled 'Swordfish Group', of logistic vehicles from each of his companies, to be commanded by Maj Pryde, his Supply Company Commander.³⁹ This task-organised company could respond with greater ease to any change in tactical situation.

The remainder of the second battle of El Alamein (which was in fact the third battle on that terrain) was relatively unremarkable for Crump and his ASC. His efforts were conducted prior to the battle beginning, and whilst the resupply during the battle was vital, it was somewhat routine. Nor was it particularly challenging, as the British supply lines were so short and they had so much time to build up supplies. Operation *Supercharge* began on 2 November and was a resounding success. It was supported by the greatest artillery concentration yet fired in North Africa, and the Axis forces, exhausted and at the end of over-stretched lines of communication, cracked.⁴⁰ The next considerable challenge that Crump had to overcome was how to support the New Zealand Division once they began pursuing the withdrawing Axis forces following the successful battle on 4 November 1942. The challenge of supporting the pursuit was going to be difficult enough as Allied lines of communication began to extend and petrol began to be consumed in increasing quantities. The challenge was made impossible by 8 November however, as the weather turned wet.⁴¹ Normally in a desert, rain would be welcome, but the sand around El Alamein had been turned to a fine dust and compacted by all the wheeled and tracked vehicles of each army. So as the rain fell over several days from 4 November, the ground turned into an impenetrable bog:

³⁹ Entry for 12 October 1942 in R26220250 'HQ Command NZASC Unit War Diary – October 1942', (ANZ)

⁴⁰ A. L. Kidson, *Petrol Company*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1961), p. 241

⁴¹ Entry for 7 November, in R26220251 'HQ Command NZASC Unit War Diary – November 1942', (ANZ)

Figure 28: Military Truck over Water-Logged Round, El Alamein, 1942 ⁴²



The Division left Alamein with about 200 miles' worth of petrol, and was tasked with taking up position at Fuka, the pursuit being led by armoured divisions. Between 4 and 8 November, the New Zealand Division was not able to move far at all, key units completely running out of petrol. Freyberg had to inform his corps commander that although they wanted to push westwards, too many vehicles were bogged.⁴³ By 9 November the weather eased and the vehicles were recovered from the bogs, and the Division could get underway again. On 11 November, the Division pushed through Halfaya Pass, Freyberg remarking that the congested traffic was fortunate not to suffer Luftwaffe attack:

⁴² Titirangi RSA Collection, *A Military Truck Travelling Over Water-Logged Ground, El Alamein, Egypt 1942*, Unknown photographer, TRS-A02-24-06, -, retrieved from <https://kura.aucklandlibraries.govt.nz/digital/collection/photos/id/86778/> Auckland Libraries Heritage Collections

⁴³ Entry for 7 November, *Freyberg's Diary* (NAM)

Figure 29: View from top of Halfaya Pass November 1942, photo by H. Paton⁴⁴



Eventually the Division reached Bardia, at which point there was time for a pause and reorganisation. The armoured divisions of the Eighth Army (particularly of 30 Corps) continued to push on, reaching Benghazi by 20 November. Freyberg observed that the army was now facing familiar problems of being located a long distance away from the support areas, and so the 8th Army continued to focus on securing key infrastructure such as the port at Benghazi and the wharves at Bardia.⁴⁵ The New Zealand Division remained near Bardia from mid-November until early December. Alongside raising sports teams for inter-unit competitions and conducting wharf duties, Crump seized the opportunity to expand the New Zealand Army Service Corps, having seen the vitality of integral logistics to the New Zealand Division for its role as a mobile infantry and armour formation.⁴⁶

⁴⁴ Department of Internal Affairs: War History Branch. *View from top of the Halfaya Pass*, photograph taken by H. Paton, November 1942, World War 1939-1945 official negatives – DA Series, Alexander Turnbull Library, Wellington, <https://tiaki.natlib.govt.nz/#details=ecatalogue.544414> DA-06744-F

⁴⁵ Entry for 21 November, *Freyberg's Diary*, (NAM)

⁴⁶ Entries for 17 and 20 November, in R26220251 'HQ Command NZASC Unit War Diary – November 1942', (ANZ)

In particular, Crump wished to double the capacity of the New Zealand Division to hold second-line ammunition through the raising of a second ammunition company and he resolved to increase the capacity of Petrol Company. If the New Zealand Division was going to pursue and destroy Axis forces all the way from Egypt to Tunisia, getting further and further away from British bases near Cairo and Alexandria, this was only possible if the formation could travel with enough ammunition on its own vehicles to be able to fight without relying on constant resupply from nearby bases, as was possible at El Alamein. Furthermore, Crump also took the opportunity to raise the New Zealand Bakery Section, thus solving the problem of soldiers being poorly fed with substandard bread. Finally, Crump also began the process of raising a Tank Transporter Company, as 4 Brigade continued their task of transforming into an armoured brigade.⁴⁷ Crump departed Bardia for Cairo to make these arrangements with the Officer in Charge (OIC) of New Zealand Administration, Brigadier Bill Stevens.

Stevens and Crump had a long relationship together, but just before El Alamein it had become strained. Stevens had the unenviable job of managing the administration for the entire Expeditionary Force from Maadi, being a key link between Freyberg and New Zealand. He did not belong to the Division, but he was responsible for all reception, staging and onward integration for any elements coming into or out of the Division, such as reinforcements and base workers. Tensions between him and Crump had come to the fore in September and October 1942, when Stevens attempted to clarify which of the two officers had command responsibilities over non-divisional NZASC units in Maadi. Crump's sometimes testy and prickly nature got the better of him when Stevens suggested to him that NZASC units in Maadi came under his command as OIC Admin, and Crump sought the intervention of Freyberg to quell the perceived threat to his command. Stevens pointed out to Crump that the two had a long and close relationship in the past, "sometimes in most difficult circumstances as in 1931 onwards" (probably a reference to the 1931 Napier Earthquake), and that he thought Crump had acted most unfairly towards him. Eventually things were ironed out between them, Freyberg summarising who had responsibility for what in terms of NZASC in Maadi.⁴⁸ Had Crump been less stubborn on this point, he may have found the task of raising the New Zealand Field Bakery Section in December 1942 to be easier, as his request to raise this unit became "the last straw" that Stevens resisted as much as he could.⁴⁹

⁴⁷ Entries for 26 November, in R26220251 HQ Command NZASC Unit War Diary – November 1942 (ANZ)

⁴⁸ Memo Freyberg to CRASC, 'Organisation of NZASC' dated 11 October 1942 in R16700525 General – 1942 (Freyberg Papers), (ANZ)

⁴⁹ Stevens, W.G., *Problems of 2 NZEF*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1958), p. 189

Each head of corps in the NZEF naturally wished to grow and expand their units and corps with the permission of Freyberg as GOC. Normally Stevens would implement the changes as best he could, as it was not his remit to advise Freyberg on how to structure his Division. But the Field Bakery, consisting of 37 men, was too much for him as he attempted to maintain a balance between increasingly limited reinforcements from New Zealand and fighting forces in the desert. Stevens pointed out to Freyberg that if the Division was to keep increasing its 'tail' at the expense of the fighting forces, eventually "there would be no one left to do any fighting". In the end, Crump's view prevailed, which Stevens later noted was the "quite proper" approach, and Crump delighted in taking any opportunity to escort Stevens to the Field Bakery and giving him a "nice, fresh, crisp bread roll."⁵⁰

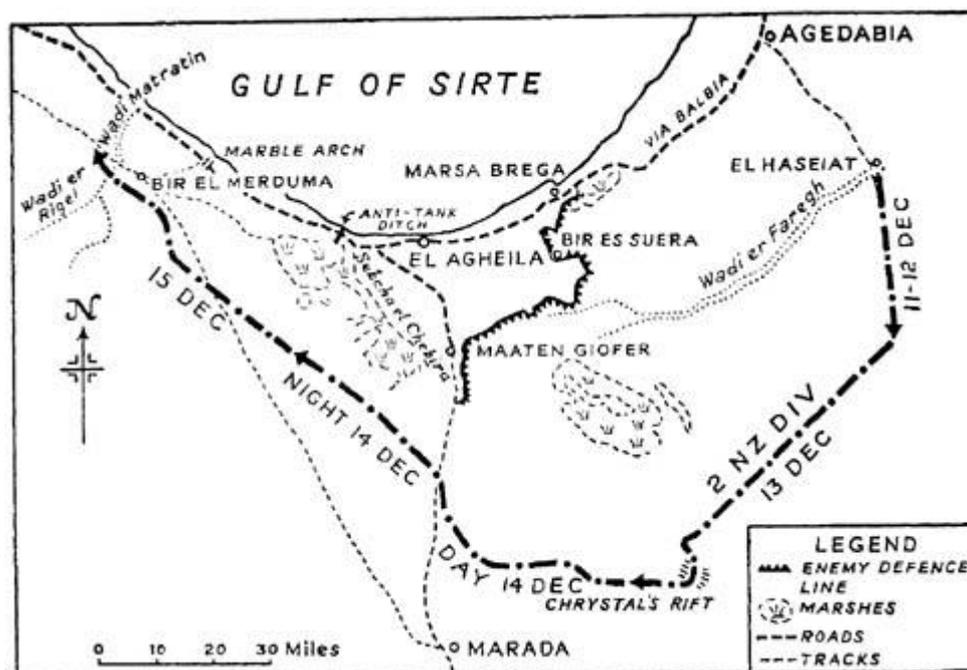
In this way, Crump succeeded in expanding his NZASC during the pause at Bardia in November – December 1942. Freyberg had gotten his wish in having his Division structured as what he assessed as the "most formidable fighting force in the world" with two mobile infantry brigades and one British armoured brigade.⁵¹ For his part, Crump was able to organise his ASC so that each infantry brigade could be transported at the same time, and his capacity to supply petrol and ammunition across long distances was the best of any British formation in the desert. The stage was now set for the Division to play a crucial role in outflanking Rommel's forces in a series of manoeuvres known as the 'Left Hooks.'

The first left hook was around El Agheila in December 1942. The Division's assembly area at El Haseiat would be the furthest extent that third line logistics could reach, therefore it would have to be self-sustainable on any operations from this point on. The brigades and divisional troops had sufficient capacity to carry themselves 300 miles, requiring Petrol Company to be able to hold enough to take the Division another 150 miles. Crump assigned as many trucks as he could from 4 and 6 RMT to Petrol Company (only as many as could be spared from their troop-carrying duties), while also arranging for 100 lorries to establish a forward dump at El Haseiat.⁵² Each day's move was across difficult terrain, and the weather again caused many to become stuck. But despite these challenges, the move was a success.

⁵⁰ Stevens, W.G., *Problems of 2 NZEF*, (Wellington: Historical Publications Branch, Department of Internal Affairs, 1958), p. 189

⁵¹ Letter Freyberg to Barrowclough dated 4 October 1942 in R16700612 'Freyberg – 1942 Miscellaneous', (ANZ)

⁵² Kidson, *Petrol Company*, p. 247

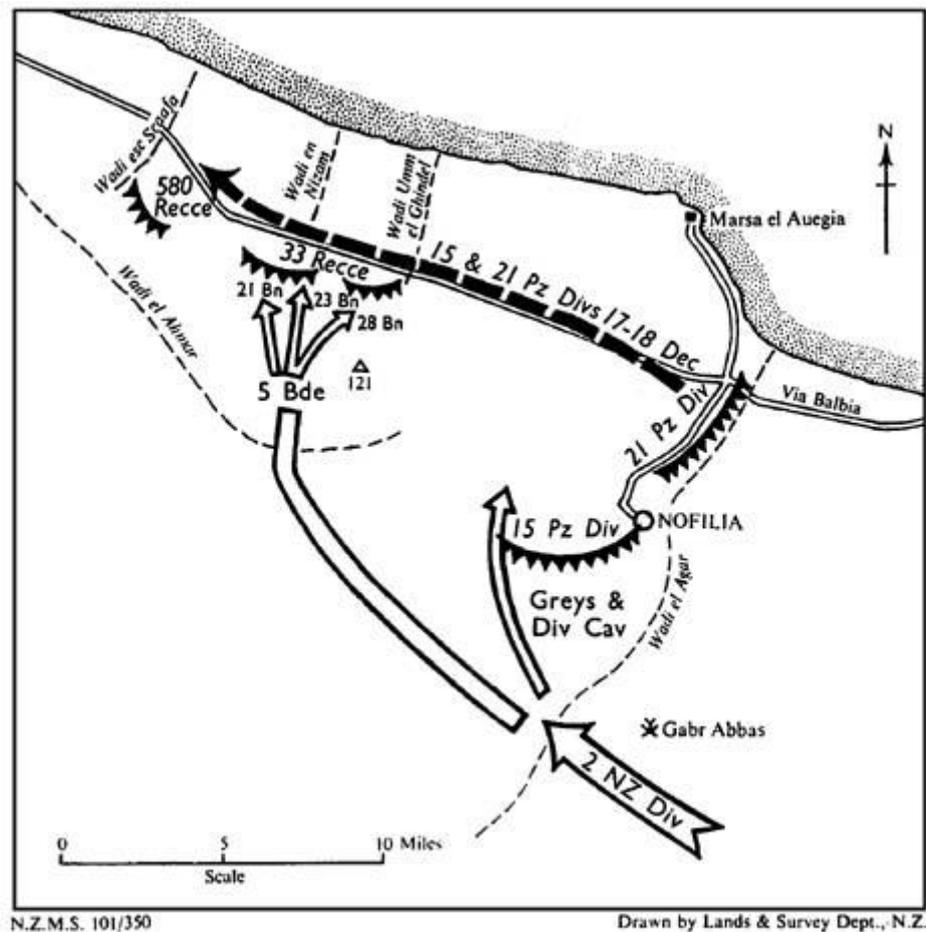
Figure 30: Left Hook at El Agheila⁵³

The second left hook followed on quickly from the first, around Nofilia, from 17 to 18 December, further along the coast from El Agheila. Although this hook was much smaller, it is notable that, thanks to Crump's ASC, the New Zealand Divisional fighting forces were never halted due to lack of petrol, and there was sufficient ammunition. However, by 18 December Freyberg observed that the Germans and Italians "have slipped away again".⁵⁴

⁵³ Kidson, *Petrol Company*, p 247

⁵⁴ Entry for 28 December, *Freyberg's Diary* (NAM)

Figure 31: Left Hook at Nofilia



OUTFLANKING NOFILIA, 17-18 DECEMBER

Corps was full of praise for the New Zealand Division's two flanking manoeuvres. Freyberg in turn was full of praise, particularly for the "drivers, [Light Aid Detachments] and Provost" as they successfully kept the convoys driving through difficult terrain in support of the brigades.⁵⁵ The Division was to halt in vicinity of Nofilia, as the 8th Army waited for supplies to catch up and aerodromes to be cleared and enhanced. These first two left hooks, however, were not a complete success, Freyberg wistfully observing that despite the successful movement, the enemy nonetheless manoeuvred out of the way and withdrew before being destroyed. One of the lessons of this was a four-hour delay due to lack of petrol, which had not been supplied by Corps. Petrol was at the front of Freyberg's mind, conscious that due to constraints at the port, only 600 tonnes could reach Benghazi per day, another 800 tonnes having to come from Tobruk by road, a 6 hour journey away.⁵⁶

The Division was able to rest and recuperate at Nofilia for Christmas and New Year, the Field Bakery establishing itself in time to issue fresh bread to the troops for Christmas. In January, the

⁵⁵ Entry for 18 December, *Freyberg's Diary* (NAM)

⁵⁶ Entry for 19 December, *Freyberg's Diary* (NAM)

Division moved onwards to Azizia and Tripoli. Advances continued westwards as Rommel continued to withdraw and the Allies cautiously advanced, taking care not to outpace their supply lines. By March 1943, Freyberg was in charge of what was to temporarily be the New Zealand Corps, consisting of the New Zealand Division, a formation of Fighting Free French forces, and British armour. Crump's remit expanded beyond just supplying the New Zealanders to also support these other Allied units. Crump was advised by British Army HQ that he would need to reorganise his staff and bring into being a Corps-level ASC command, as they were sceptical that he could manage the administration for a Corps and a Division at the same time. Crump was determined to prove them wrong, proudly writing to Freyberg in 1944 that:

The GOC may remember his putting me in charge directly under Brigadier Miles Graham "Q" and ST of Army for "AQ" duties of the New Zealand Corps from Wilders Gap and the breakthrough of the Mareth Line... I decided the reserves to be held, the siting, establishing and control of FMCs and the stock to be held therein, Army giving me all I wanted and fulfilling all my subsequent demands excellently... When the frontal assault on the Mareth Line failed General Montgomery sent 10 Corps HQ and 1 Armoured Division to join New Zealand Corps. This move from Medenine to Bir Sultan via Wilders Gap was completed in very short time but the formation was in need of ammunition, petrol and supplies... Issues were made from NZ FMC to 1 Armoured Division and they were fully replenished by nightfall. I was very surprised when I was informed that AQ was given credit for this when being introduced to the PM of England and the PM, in reply to his question, was told "AQ had not been short of anything." It was also previously stated at a conference that "Q" was directly responsible for this work. Field Marshall Montgomery himself and his Q and S&T staff with whom I dealt direct and also the then 10 and 30 Corps staffs will support the claims that NZASC alone was responsible, as always, for the maintenance of our Division and some others at times, from the breakthrough at Alamein Egypt to Tunisia.⁵⁷

⁵⁷ Memo Crump to Freyberg, 'Rough Notes re NZASC Functions – Quite Unofficial' dated 24 October 1944, in R16700657 'NZASC Reports (Freyberg's Files)', (ANZ)

Crump's pride when writing this memo to Freyberg was plainly suffering, though it must be noted that he had been at war for nearly five years at this point, with only one brief visit home on furlough in 1943. He also wrote that memo only a few months after his nephew, Second Lieutenant Douglas Crump was killed in action in Italy. Nevertheless, it is plain to see that Crump was proud of his efforts and the efforts of his ASC in sustaining the New Zealand Division across such long distances in very difficult circumstances. His wounded pride at other individuals being given the credit for this is perhaps understandable when considering how vital it was that the New Zealand Division have all the supplies it needed, which by any measure it did until the surrender of the Axis forces in May 1943.

Crump's wounded pride may be further sympathised with when considering that sustaining an advance or a pursuit is the most difficult task for a military logistician. The defensive phase of war has some certain advantages in that a delaying force either collapses back on its own supply lines, or else a static defensive battle can be pre-prepared from nearby support nodes. When transitioning to the offense, a tactician must ensure that lines of communication are not over-extended, as Rommel failed to appreciate when launching his raid on the Egyptian border in November 1941. Field Marshal Alexander wrote after the war:

Full preparations were made for the enormous extension of the supply services which would be necessary when the enemy had been defeated and we turned to the pursuit. There was no difficulty in accumulating large reserves in the initial stage, since distances were short and we had both rail and road transport to as great an extent as we could require. But it must be remembered that any advance would be into a desert, completely barren of any kind of resources beyond some rather indifferent water, and all supplies would have to come still from the same base. This would mean that very large quantities of motor transport would be needed.⁵⁸

The British authorities at the time held to a rule of thumb that for every fifty miles a division was from a railhead or port, one third-line General Transport company was required for replenishment duties.⁵⁹ That Crump was able to sustain the New Zealand Corps, despite being over 600 miles from Tobruk, with only the services of a single additional general transport company, is testament to his planning and foresight.

⁵⁸ Field Marshall the Viscount Alexander of Tunis, 'The African Campaign From El Alamein to Tunis', *Supplement to the London Gazette* (London), 5 February 1948, pp. 848-849

⁵⁹ Field Marshall the Viscount Alexander of Tunis, 'The African Campaign From El Alamein to Tunis', *Supplement to the London Gazette* (London), 5 February 1948, p. 849

The final left hook around the Mareth Line was a notable feat, remarkable for both the success in which the long and arduous journey was conducted, but also in that the results yielded remarkably little in terms of enemy destroyed, as Kippenberger observed after the war:

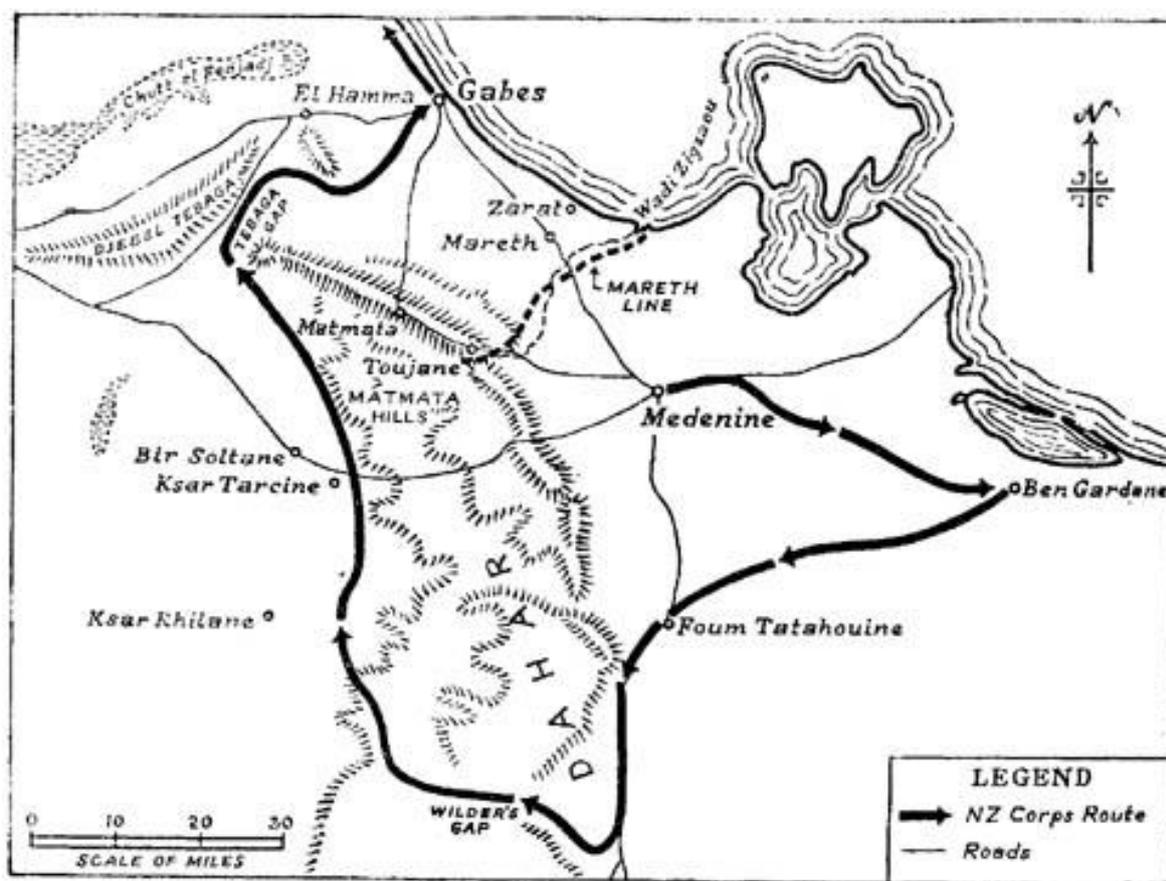
I am firmly of the opinion that [the left hooks] were badly handled. In the first one at Agheila I pleaded during the move that... we arrived within striking distance of the coast just before dawn... I [was] supported by Gentry, but General Freyberg, whose last wish was to get engaged in a severe action, would not change the staging.

At Nofilia I think we missed a great opportunity. If 5 Brigade had been allowed to continue to its move to the point I had selected, we would have ... intercepted the petrol for the Panzer Divisions. It was sheer bad luck that I saw General Freyberg watching our move from half a mile away and ran across to speak to him.

[At] Tebaga Gap... we had quite sufficient forces... [and] ample supplies. The trouble was that General Freyberg was naturally an extremely cautious general, and that all the time he had this business of the Charter in his mind. It was the same trouble in Crete which we should have held against the first attack if vigorously commanded. Always he had it in his mind that [the] New Zealand Division must not be risked.⁶⁰

Freyberg was, by this stage in the war and particularly after Greece, Crete and Operation *Crusader*, loathe to risk his forces unless certain of victory. The rights and wrongs of Freyberg's caution are, however, irrelevant to the question of how far Crump contributed to New Zealand's success in the war – as Kippenberger observed, want of supplies was simply not a limiting factor for the Division during any of the Left Hooks. It can be seen that by reorganising the ASC to support the largest and most complex formation in the Middle East, and by quickly adapting to having to sustain an entire corps (albeit for a brief period), Crump ensured that any lack of tactical success was despite the difficulties to sustain mobile desert warfare, and not because of it.

⁶⁰ Letter, Sir Howard Kippenberger to Jerry Scoullar dated 21 June 1955 in R12681220 'Correspondence of Major General H. Kippenberger', (ANZ)

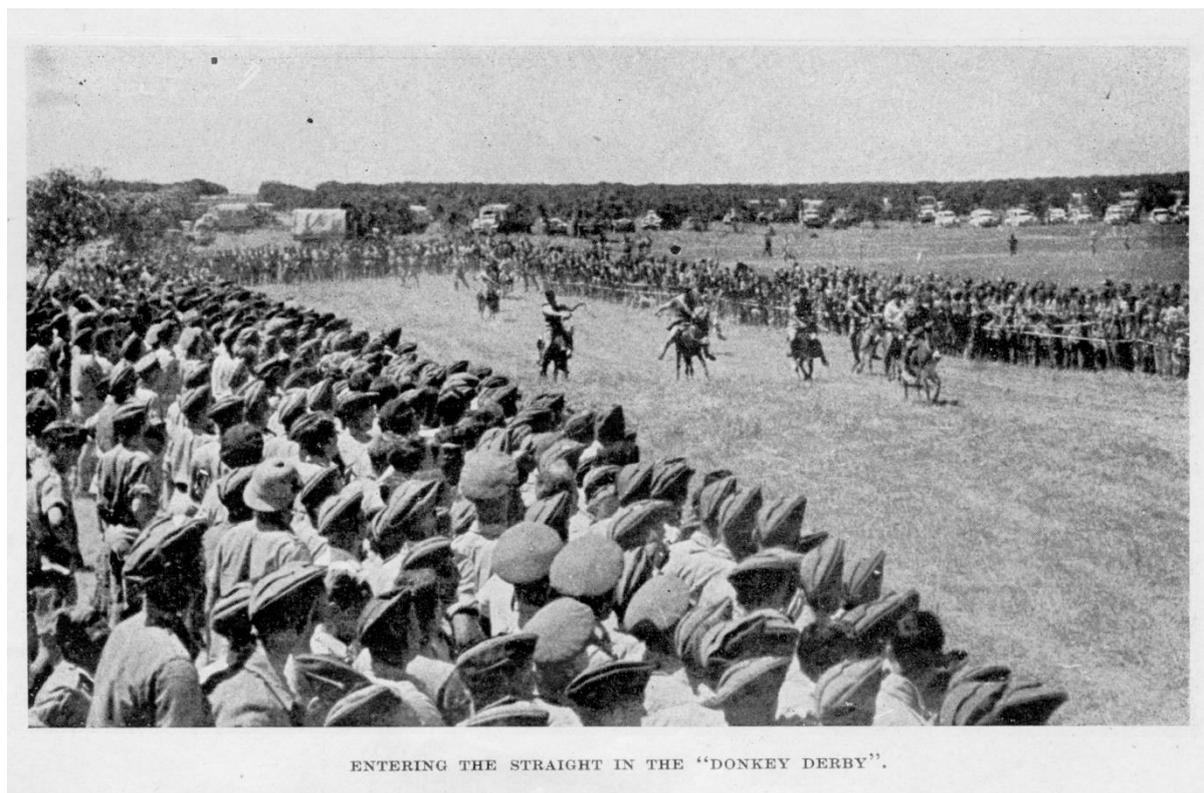
Figure 32: Left Hook at Mareth⁶¹

LEFT HOOK AT MARETH

Crump's efforts in the final campaign weeks of the fighting in Tunisia are notable for one morale-boosting effort, the rise and demise of the New Zealand Mule Pack Company. For little over a month, this small unit of Crump's ASC was raised to navigate and traverse the mountainous slopes of Tunisia, though in the event was never needed and its most remarkable contribution to the war effort was the 'Donkey Derby' held in May 1943. As soon as it was proposed to him by various sporting enthusiasts that the bored and weary New Zealand troops would benefit from a racing fixture staged by this unique company, Crump gave his enthusiastic approval. Clearly Crump had not lost his sense of humour by this stage in the war.

⁶¹ Kidson, *Petrol Company*, p. 270

Figure 33: 'Donkey Derby' Race, May 1943 ⁶²



When Lieutenant Colonel Murray Reid, MC and bar, New Zealand Engineers, returned home to New Zealand and wrote his memoirs of the war, and in particular North Africa, he wrote about Crump's ASC:

I would like to pay tribute to the Army Service Corps, that very efficient and little heard of arm of the service. Had it not been for their wonderful organisation, capable officers, and their hard working, skilful drivers we should never have been able to carry on. Theirs was a thankless task, full of difficulties, with very little reward for the labours, except growls from hungry men... To my mind it is a shame that, outside the army, so little is known of the magnificent work this unit has done and is still doing. ⁶³

Crump's magnificent work was vital for New Zealand success in North Africa from the moment they returned to Syria in June 1942 until the surrender of the Axis in May 1943. During that time, the Allies transitioned from the defensive to the offensive, fighting area defences, delays, breakouts, advances, pursuits and attacks. Crump's provision of supplies and movement of troops was conducted initially in the face of Axis ground and air forces with a large degree of momentum, in a

⁶² 49916 1 NZ Mule Pack Company: *Reminiscences*, unknown author, copy given to Major James Pool, 1943, QEII Army Memorial Museum

⁶³ H. Murray Reid, *The Turning Point: With the New Zealand Engineers at El Alamein*, (Auckland: Collins, 1944), p. 91

chaotic Allied picture and always in the hostility of an unforgiving desert. He maximised the short distances to traverse at El Alamein, also overcoming lack of communications and the complexity of moving large amounts of ammunition so that the greatest artillery barrage of the war to date could be sustained. The principle of simplicity is one of the most important principles of logistics, and he and his officers were able to maximise this through standardisation and thorough preparations. When the Allies undertook the arduous task of pursuing Rommel, Crump overcame increasingly long lines of communication, ensuring that the New Zealand troops were fed, watered and equipped with ammunition and petrol whenever they needed it. By this time, the 2nd New Zealand Division was an impressive fighting force, unmatched by any other British Division for its combination of mobile infantry and integral armour. Supporting not just those combat forces, but also the artillery, engineers and myriad other supporting troops was a considerable feat, for which Crump received remarkably little credit.

CONCLUSION – Success Despite Great Challenges

Logisticians are a sad, embittered race of men, very much in demand in war, who sink resentfully into obscurity in peace.

They deal only with facts, but must work for men who traffic in theories. They emerge during war because war is very much fact.

They disappear in peace, because in peace, war is mostly theory.

The people who trade in theories and who employ logisticians in war and ignore them are Generals.

Logisticians hate Generals... Generals fear logisticians in war, and in peace, Generals try to forget logisticians.

Admiral Isaac Campbell Kidd, USN, 1983¹

The introduction to this thesis posed two questions, answers to which illuminate Brigadier Stanley Crump's contribution to New Zealand's war effort in Greece and North Africa. Those two questions were: how did Brigadier Crump contribute to the success (or otherwise) of the New Zealand Division in the Second World War? And what particular challenges did Brigadier Crump face in commanding the New Zealand Army Service Corps to support that Division?

If Crump failed in his primary role of transporting, supplying, feeding and maintaining the Division, it would simply have been wiped out in battle. That this did not occur (despite coming close in the Battle of Sidi Resegh in Operation *Crusader*) is testament to Crump and his ASC. In fact, the New Zealand Division came to be regarded as one of the most important divisions in the entire Eighth Army as the Allies won their first successes of the war in the campaign for North Africa.

Born two months before Freyberg, Crump conducted his duties as the oldest serving member of the Division. Bill Gentry called Crump "a marvel for his years", aged 50 years and seven months old when war was declared in September 1939.² Not only was he the oldest member of the Division, Crump held the unique distinction of being the only senior officer to continuously hold the same position from start to end. No other battalion, brigade or regiment commander remained in post, either being promoted, captured, killed or returning home, nor did any other staff officer or commander of Engineers, Artillery or Ordnance Services. Even Freyberg's command of the Division

¹ Admiral Isaac Campbell Kidd, USN, 'A Sad, Embittered Race of Men' *Naval War College Review* 36, no. 1, 1983, pp. 24–25. <http://www.jstor.org/stable/44642839>.

² Letter Lt Col W.R. Gentry to his wife, dated 29 August 42, MS-Papers-5525-3, Alexander Turnbull Library (ATL)

was interrupted with injury and temporary Corps command. Crump sailed to war with the first echelon, and remained behind to command the Rear HQ of 2 NZEF in 1946, finally returning home on 29 December 1946.³ He was truly 'first in, last out'.

Crump's return home was to be short-lived, being selected to command New Zealand troops in Japan in May 1947, and again in 1949, both times in a relieving capacity. As was the case in Europe, Crump was one of the very last members to return home, staying behind to "wash up", coming home after two years in Japan in May 1949.⁴ Crump only had one period of leave to come home during the Second World War, returning to New Zealand for only three weeks in 1943. From January 1940 when he embarked with the First Echelon until May 1949 when he returned from Japan, Crump spent only six months in New Zealand and with his family, a remarkable fact that is testament to his dedication to the Army. Crump's youngest son David was nine years old when he went to war, and barely saw his father until he was nineteen, such was Stanley Crump's devotion to his Corps.⁵

It is evident from studying Crump's actions in the Second World War that his contributions towards the New Zealand Division's success were beyond substantial. From a minimal ASC with no more than a dozen trucks during the inter-war period, Crump was able to raise and train a huge formation of soldiers and officers, his ASC eventually coming to be the biggest in the entire expeditionary force, apart from the Division itself. Crump first of all raised the NZASC to the standard 'War Establishment' of a British infantry division, consisting of a single company each of transport, ammunition, supply and petrol. From his experiences in Greece, where his transport was unhelpfully re-purposed by superior British officers to support the entire force, and after further setbacks in North Africa (especially Operation *Crusader*), Crump saw that a mobile division required more than just the standard ASC set up. With focus and determination, he was able to reorganise his command so that it could transport two infantry brigades at once, whilst simultaneously providing all the ammunition and petrol in quantities unprecedented in demand. This meant that by the end of the campaign in North Africa, Crump had roughly doubled the size of his command, and with the reduction of the New Zealand Division's infantry brigades from three to two, the ratio of 'tail' to 'teeth' was even more in favour of Crump and his ASC. When being considered for command in Japan, Brigadier Keith Stewart (Adjutant-General of the New Zealand Army) said of Crump:

³ Crump, Stanley Herbert, 'Record of Promotions etc' in R24097215 'Personal File – Crump, Stanley Herbert', Archives New Zealand (ANZ)

⁴ 'Army Officer Returns', *Otago Daily Times* (Dunedin), 19 April 1949, p. 9

⁵ Interview Julia Millen and Selwyn Toogood, 3 October 1995 'History of RNZCT', Alexander Turnbull Library (ATL)

As you know his work in [the] war was outstanding. He was [a] first class commander and organiser... I would remind you that at one stage NZASC was [the] largest command in [the] NZEF after NZ Division.

Modern military logistics doctrine lists eight key principles for sustaining a tactical force. These are: balance, responsiveness, economy, flexibility, foresight, simplicity, sustainability and survivability.⁷ Whilst no such doctrinal publication existed for Crump at the time of his war, he nevertheless applied all of these principles to enable success overall for the New Zealand Division. Examples of his application of each principle are as follows:

Balance	Whilst maintaining the need for economy, balancing the requirement for redundancy and reserve capacity, as shown through maximising the holding capacity of his ASC companies from the Second Battle of El Alamein until the conclusion in Tunisia (notably the left hooks).
Responsiveness	As no plan survives contact with the enemy, Crump needed to structure, stock and position his ASC to be able to respond to the needs of Freyberg and the brigade commanders. He positioned his troops in Greece to be able to rapidly respond to a deteriorating situation, successfully transporting the New Zealand troops and their equipment through a series of delay positions and eventually to the evacuation beaches.
Economy	Crump was always challenged by Brigadier Bill Stevens to expand the resources of his ASC only if absolutely necessary, thus necessitating maximum economy of the resources he had available. Despite this, no other formation of the New Zealand Division expanded to the extent that Crump's ASC did, which is a reflection of the under-estimation of how heavily tasked the NZASC would be throughout the war.

⁶ Cipher Telegram, Brigadier K.L. Stewart to Major General Norman Weir (London), dated 23 June 19, in R24097215 Personal File – Crump, Stanley Herbert, Archives New Zealand (ANZ)

⁷ Australian Army, *Land Warfare Doctrine 4-0: Logistics*, Australian Army: Canberra, 2018, p. 10.

Flexibility	Crump maintained positive command and control throughout all campaigns so that his companies could rapidly respond to a change in situation. He held conferences with his company commanders as frequently as possible, whilst also constantly maintaining awareness through HQ New Zealand Division (rear) about the overall supply and transport situations. His tenure as Director of Supply and Transport for the New Zealand Corps in May 1943 showed his ability to respond rapidly with minimal disruption to the support he was providing, despite the complexity of multiple units to support over long lines of communication.
Foresight	Crump need to be at least one step ahead of the battle. During the pause at Bardia at the end of 1942, Crump undertook extensive reorganisation of his ASC to prepare not just for the upcoming pursuit to Tunisia, but also how to support two infantry brigades and a tank brigade, which came into use for the Italian campaign.
Simplicity	The ammunition dumping program prior to El Alamein provides an example of how a complex operation over several nights was successfully carried out, despite minimal communication with 'customer' units (due to lack of wireless), attacks by the Luftwaffe, the need for operational security and the sheer volume of material to be moved. Crump's plan was simple and effective, able to be understood by each individual driver of the ammunition lorries.
Sustainability	Crump's ASC never culminated ⁸ , despite the very heavy burden placed on it to support not only New Zealand forces, but also to often remain behind and provide support to British forces, for example during the aftermath of Operation <i>Crusader</i> in 1942. He maintained logistic support to all users for the duration of all campaigns, balancing the factors of destination, demand, distance, duration and dependency.
Survivability	The training of the ASC both before and during the war was key to ensuring that despite attack by the Luftwaffe, his units and commanders fully appreciated the need for dispersion and security, particularly through operating at night. When his companies were under sustained attack by the Luftwaffe whilst preparing for the Second Battle of El Alamein, casualties were minimal, attributable to the security measures he ensured were drilled into his men.

⁸ To reach a culminating point, in military terminology, means to reach a point in which a force is no longer able to conduct its operations, either through exhaustion, lack of personnel, supplies or equipment.

Crump's contributions to the success of the New Zealand Division through the application of these principles were not without considerable challenges. It is clear that there was a costly underestimation of how vital the ASC was to the Division, and it was not initially structured to provide the support required. This was most notable during Operation *Crusader*, when the New Zealand Division nearly ran out of ammunition and came as near to destruction as they ever would. Crump's ASC could not replenish the artillery units because they themselves were unable to be replenished by an over-stretched British supply chain, which also suffered the ignominious loss of a forward supply depot, captured by Rommel. Disaster was only averted through a timely (and courageous) convoy being led by Brigadier George Clifton and an ammunition ship simultaneously docking at Tobruk. Crump learned from this that a single ammunition company and a single transport company did not enable the balance, responsiveness or flexibility required of mobile warfare across vast distances, nor could he keep relying on British rear-area support. He overcame this by ensuring that his ASC was able to carry approximately double the supplies initially estimated as viable, and after *Crusader* there were no repeats of the ASC running out of supplies.

The complexities of modern warfare were another key challenge that Crump overcame, learning from desert fighting. Quantities of petrol required were poorly estimated initially, and lessons were learned and applied about consumption among not only the armoured fighting vehicles, but also the 2,000 or so cars and lorries that moved the New Zealand Division. Desert warfare meant that water was a scarcity, but unlike Rommel's quartermasters (or perhaps Rommel's lack of attention to his quartermasters), Crump never let the New Zealand Division culminate or become unable to fight due to running out of supplies. One exception might be the deficiency of petrol in the initial stages of the pursuit from El Alamein, but this is more attributable to the desert rain turning the sand into a bog, a challenge that could only be overcome by waiting for the conditions to improve.

The three key risks to a tactical plan that must be overcome by military logistic commanders are that the force must not culminate, lose tempo or run out of mission-essential-items.⁹ For the New Zealanders in North Africa, this meant constant supplies of artillery ammunition, petrol, food and water. The three left hooks especially needed greater amounts of petrol and ammunition. Crump's ability to provide these in a desert, thousands of miles from the nearest support base, is testament to his resolve, foresight and command.

⁹ Australian Army, *Logistics*, p. 66.

Crump's war was not without personal loss. He was very close to his two nephews of the 18th Battalion, Noel and Douglas Crump. Noel survived the war, being wounded in 1943 and invalided back home. Douglas did not survive, killed in action in Italy on 7 August 1944. The photo of Stanley Crump at the grave of his nephew in Italy in 1944 shows a weary old man, grieving perhaps not just his own nephew but countless others lost up to that point:

*Figure 34: Brigadier Crump at Grave of Douglas Crump, Italy, 1944*¹⁰



Crump's remarkably long career cannot be studied in the confines of this thesis, which has focussed on the first two campaigns of the Second World War only – Greece and North Africa. These two campaigns, alongside the mobilisation and deployment of Crump's ASC, have shown the criticality and vital nature of logistics to modern warfare. Further study of the NZASC throughout the remainder of the Second World War, especially the Italian campaign from May 1943 until victory in 1945, could complete an examination of New Zealand military logistics and Crump's role in sustaining the Second New Zealand Division. Moreover, a thorough examination of Crump and his

¹⁰ Album of Photographs Taken and Collected by Douglas Ronald Crump, PA1-Q-764, Alexander Turnbull Library (ATL)

role with the New Zealand Mounted Rifles Brigade and the Anzac Mounted Division in the Middle East during the First World War could also illuminate not only this remarkable officer's career but also how New Zealand military logistics adapted to the needs of modern and mobile warfare across and between these two wars. Of all the senior officers in the New Zealand Division in the Second World War, Crump was one very few officers who served in the Middle East for both world wars, the majority of New Zealanders serving in France and Belgium on the Western Front a generation earlier. Therefore, studying Crump's actions in both wars could offer a contrast of sustaining warfare in that location with a unique common denominator.

Overall, Crump was a remarkable commander and professional logistics officer, whose record has been under-appreciated. Without him and his efforts, it is questionable that the New Zealand Division would have even survived the failed campaigns such as Greece and Operation *Crusader*, nor would the Division have been able to conduct complex and successful manoeuvres as they did from El Alamein to Tunisia. The New Zealand Division was one of the key fighting formations of the entire Eighth Army from 1942 to 1943. No tank can drive without petrol, no gun can fire without ammunition, and no man can march without food and water. In the North African desert, Rommel ran out of all those commodities. Freyberg and the New Zealanders, by and large, did not. Crump was a key reason for that, and this thesis has sought to examine how he contributed to the success of the division, and amidst what particular challenges. Crump's character was one of determination and resolve, at times rubbing up the wrong way with key individuals, but always with the result that his NZASC was structured, supplied, equipped and informed to sustain whatever tactical plan Freyberg or others enacted. His tenure as Commander of the NZASC was without precedent and has never been repeated in terms of duration or influence.

Stanley Crump earned the title of 'Father of the Corps', going on to be appointed Colonel Commandant of the Royal New Zealand Army Service Corps in his retirement. The modern Royal New Zealand Army Logistic Regiment is a near mirror-image of this original corps, and will do well to look to this key individual to learn how to overcome challenges and sustain a modern army to success on the battlefield. As General Robert Barrow, commandant of the United States Marine Corps said in 1979, "Amateurs talk about strategy and tactics. Professionals talk about logistics and sustainability in warfare."¹¹ It was a concept that the professional Stanley Crump well appreciated and applied, and without whose efforts the New Zealand Division may not have succeeded as it did, nor might it have survived the setbacks as it did.

¹¹ 'Marines' Barrow backs SALT – and Conventional Rearming', *San Diego Union* (San Diego), 11 November 1979, p. 68

BIBLIOGRAPHY

[Alexander Turnbull Library, Wellington](#)

DA-01049-F 'Prime Minister Peter Fraser visiting NZ soldier, Egypt', photograph taken by an official photographer (unidentified), May 1941

DA-01050-F 'Prime Minister Peter Fraser with Colonel S.H. Crump during a visit to the Middle East in May 1941' taken by an official photographer (unidentified)

DA-08193-F 'A soldier of New Zealand Division Ammunition Coy rendering a truck useless before abandoning it to the enemy', photograph taken by J E Taylor, 1941

DA-02563-F 'Petrol Dumps Burning in Egypt', photograph taken by Captain John White, 15 July 1942

DA-02269B-F 'New Zealand Truck Captured in Greece Recaptured in the Libyan Advance', photograph, 20 Dec 1941

MS Papers 5525-3, 'Gentry Letters to his family'

MS-Papers-6905-14 'Letters to Family, Spencely Noel Stanley Crump'

Interview Julia Millen and John Calvin, 'History of RNZCT', 29 April 1996,

Interview Selwyn Toogood and Julia Millen, 'History of RNZCT', October 1995

PA1-Q-764 Album of Photographs taken and Collected by Douglas Ronald Crump

[Archives New Zealand, Wellington](#)

R12681219 'Correspondence concerning the Libyan Campaign of 1941'

R12681220 'Correspondence of Major General H. Kippenberger'

R16700536 'Special Files - Lecture Notes, February 1940 - September 1942'

R16700550 'Libyan Campaign – General, January – December 1941'

R16700588 'General Officer Commanding - First Visit to New Zealand - December 1939 - January 1940'

R16700525 'General – 1942'

R16700612 'Freyberg – 1942 Miscellaneous'

R16700627 'Unexpurgated Copy of Report on Crusader, Libya'

R16700629 'Miscellaneous Reports etc, Minqair Qaim-Ruweisat Ridge'

R16700657 'NZSAC Reports, ASC in Italy, Rough Notes on Functions'

R18527832 'Transport, report of DQMG (District Quartermaster General) on visit to Australia'

R18527879 'Visit – Sir Alexander Godley'

R20108095 '2 NZEF – Headquarters 2 NZ Division – War Establishments'

R20110060 2NZEF – Biography of Brigadier S.H. Crump

R20109282 '2NZEF - NZ Army Service Corps - Letters of Appreciation of Work During Libyan Campaign'

R20909304 '1 NZ Ammunition Company – Greece – S G Toogood'

R20109345 '2NZEf - NZ Army Service Corps - 4 NZ Reserve Mechanical Transport Company - Unofficial History - J W Sargent'

R20109784 '2 NZEF War History Branch Unpublished Campaign Narrative, Greece, Part 1'

R20109797 '2NZEf War History Branch Campaign Narrative: campaign in Greece, Part 5', unpublished, August 1955

R20960352 'Medical Council – Nutrition 1938-1940'

R21124597 'Notes on Conversations with Freyberg, 15 June 1940'

R21124665 'Personal Diary of E. Puttick, 24 Jun 1940-27 July 1941'

R22441964 'Staff Enlistment and Conditions of Service – Permanent Army Service Corps' – General

R22432062 'Annual Report of the General Officer Commanding New Zealand Military Forces' dated 31 July 1937

R22498071 'Convoy Under Shell Fire, Sidi Rezegh, 13 March 1942', Peter McIntyre, watercolour,

R23517351 'HQ 2 NZ Division, General Staff – War Diary, 1 March 1941-30 Apr 1941'

R23517360 'HQ 2 NZ Div General Staff, 1 June 1941 – 31 December 1941'

R26106640 'HQ 2 NZ Division 'A and Q' Unit War Diary – May to July 1941'

R23517424 'HQ 4 NZ Brigade War Diary – March 1941'

R23517425 'HQ 4 NZ Brigade War Diary – April 1941'

R23517597 'HQ 5 NZ Brigade War Diary – March 1941'

R23517596 'HQ 5 NZ Brigade War Diary – April 1941'

R23517662 'HQ 6 NZ Brigade War Diary – March 1941'

R23517663 'HQ 6 NZ Brigade War Diary – April 1941'

R24055558 'Personal File, Stanley Herbert Crump, NZDF' (ANZ)

R24097215 S.H. Crump Personal File

R26105696 'HQ 2NZEf (UK) Unit War Diary - July 1940'

R26105698 'HQ 2NZEf (UK) Unit War Diary - August 1940'

R26106639 'HQ 2 NZ Div, 'A and 'Q' War Diary – Jan to Apr 1941'

R26106640 'HQ 2 NZ Div, 'A' and 'Q' Unit War Diary – May to July 1941'

R26106640 'HQ 2 NZ Div, 'A' and 'Q' Unit War Diary, July 1941'

R26106642 'HQ 2 NZ Div 'A' and 'Q' Unit War Diary, October to December 1941'

R26220217 'HQ Command NZASC Unit War Diary - December 1939 to January 1940'

R26220218 'HQ Command NZASC Unit War Diary – February 1940'

R26220221 'HQ Command NZASC Unit War Diary - May 1940'

R26220231 'HQ Command NZASC Unit War Diary - March 1941'

R26220232 'HQ Command NZASC Unit War Diary - April 1941'

R26220238 'HQ Command NZASC Unit War Diary – October 1941'

R26220240 'HQ Command NZASC Unit War Diary – December 1941'

R26220245 'HQ Comd NZASC Unit War Diary, May 1942'

R26220246 'HQ Comd NZASC Unit War Diary, June 1942'

R26220247 'HQ Comd NZASC Unit War Diary, July 1942'

R26220248 'HQ Comd NZASC Unit War Diary, August 1942'

R26220249 'HQ Comd NZASC Unit War Diary – September 1942'

R26220250 'HQ Command NZASC Unit War Diary – October 1942'

R26220251 'HQ Command NZASC Unit War Diary – November 1942'

R26220436 '1 NZ Sup Coy War Diary – March 1941'

R26220437 '1 NZ Sup Coy War Diary – April 1941'

R26220276 '1 NZ Amn Coy War Diary – March 1941'

R26220277 '1 NZ Amn Coy War Diary – April 1941'

R26220284 '1 NZ Amn Coy Unit War Diary – November 1941'

R26220347 '1 NZ Pet Coy War Diary – March 1941'

R26220351 '1 NZ Pet Coy War Diary – July 1941'

R26220352 '1 NZ Pet Coy War Diary – August 1941'

R26220355 '1 NZ Petrol Company Unit War Diary – November 1941'

R26220505 '4 NZ RMT War Diary – March – June 1941'

[Queen Elizabeth II National Army Museum, Waiouru](#)

#49916 *1 NZ Mule Pack Company: Reminiscences*, unknown author, copy given to Major James Pool, 1943

#51445, Freyberg's War Diary

[Newspaper Articles](#)

Field Marshall the Viscount Alexander of Tunis, 'The African Campaign From El Alamein to Tunis', *Supplement to the London Gazette* (London), 5 February 1948

'Commander of Dominion's Special Force Hold Staff Conference in Wellington', *New Zealand Herald* (Auckland), 29 December 1939

'The Army Service Corps: Important Military Unit', *Press* (Christchurch), 29 September 1934

'Defence Forces: Australian Plan – Mechanised Units in Peace and War', *Evening Post* (Wellington), 31 July 1933

'On their Way to Burnham', *Star* (Christchurch), 5 March 1934

'Army Service Corps: Trek to the West Coast', *Press* (Christchurch) 9 August 1938

'The Army Service Corps in Training', *Press* (Christchurch), 10 May 1938

'Health First: Soldiers' Food', *Star* (Auckland), 31 October 1931

'Army Officer Returns', *Otago Daily Times* (Dunedin), 19 April 1949

'Marines' Barrow backs SALT – and Conventional Rearming', *San Diego Union* (San Diego), 11 November 1979

Websites

Titirangi RSA Collection, *A Military Truck Travelling Over Water-Logged Ground, El Alamein, Egypt 1942*, Unknown photographer, TRS-A02-24-06, retrieved from <https://kura.aucklandlibraries.govt.nz/digital/collection/photos/id/86778/> Auckland Libraries Heritage Collections

Journal Articles

Brigadier G.S. Brunskill, 'The Campaign in Greece in 1941', *Army Quarterly*, April 1947

Major General Charles R. Hamilton and Lieutenant Colonel Edward K. Woo, 'The Road to Predictive Logistics: Perspectives from the 8th Theatre Sustainment Command', *Army Sustainment*, October-December 2019

Admiral Isaac Campbell Kidd, USN, 'A Sad, Embittered Race of Men' *Naval War College Review* 36, no. 1, 1983

Nick Wilson et al., 'A Nutritional Analysis of New Zealand Military Food Rations at Gallipoli in 1915: Likely Contribution to Scurvy and Other Nutrient Deficiency Disorders', *The New Zealand Medical Journal* 126, no. 1373, 19 April 2013

Major-General Sir Howard Kippenberger K.B.E., C.B., D.S.O., E.D., LL.D. 'The New Zealand Army', *Royal United Services Institution*, no. 605, 1957

Books

Australian Army, *Land Warfare Doctrine 4-0: Logistics*, Canberra: Australian Army, 2018

Niall Barr, *Pendulum of War, The Three Battles of El Alamein*, London: Jonathan Cape, 2004

P.W. Bates, *Supply Company*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1955

Winston Churchill, *The Second World War*, Melbourne: Cassell, 1948

Clausewitz, C. von, *On War* (1874; Project Gutenberg, 2006), translated by Col J.J. Graham, <https://www.gutenberg.org/files/1946/1946-h/1946-h.htm>

George Clifton, *The Happy Hunted*, London: Cassell, 1952

J.F. Cody, *28 (Maori) Battalion*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1956

Peter Cox, *Desert War: the Battle of Sidi Rezegh*, Auckland: Exisle, 2015

John Crawford, ed., *Kia kaha: New Zealand in the Second World War* Auckland: Oxford University Press, 2000

Martin L. Van Creveld, *Supplying War: Logistics from Wallenstein to Patton*, Cambridge, New York: Cambridge University Press, 1995

D. Davin, *Crete*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1959

W. D. Dawson, *18 Battalion and Armoured Regiment*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1961

Benjamin Franklin, *The Way to Wealth* (1758; Project Gutenberg, 2013), <https://www.gutenberg.org/files/43855/43855-h/43855-h.htm>

B.C. Freyberg VC, *A Study of Unit Administration*, Aldershot: Gale & Polden, 1933

John Grehan, Martin Mace, and Sara Mitchell (eds), *North Africa and the Middle East, 1939-1942: Tobruk, Crete, Syria and East Africa*, Barnsley: Pen & Sword, 2015

Alan L. Gropman *The Big 'L': American Logistics in World War II*, Washington, DC: National Defense University Press, 1997

Glyn Harper, *The Battle for North Africa: El Alamein and the turning point for World War II*, Bloomington: Indiana University Press, 2017

Glyn Harper, *Kippenberger: An inspired New Zealand Commander*, Auckland: HarperCollins, 2005

Basil Henry Liddell Hart, ed., *The Rommel Papers*, New York: Da Capo Press, 1982

Joseph M. Heiser, *A Soldier Supporting Soldiers*, Washington: Center of Military History, 1991

Jim Henderson, *4th and 6th Reserve Mechanical Transport Companies*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1954

Antoine Henri Jomini, *The Art of War*, US Military Academy, West Point, NY, 1862, retrieved from Project Gutenberg: <https://www.gutenberg.org/files/13549/13549-h/13549-h.htm> on 28 September 2021

A.L. Kidson, *Petrol Company*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1961

Kenneth Macksey, *For Want of a Nail: the Impact on War of Logistics and Communications*, London: Brassey's, 1989

Captain Alfred T. Mahan, USN, *Armaments and Arbitration*, New York: Harper & Brothers, 1912

William Graham McClymont, *To Greece*. Wellington: Historical Publications Branch, Department of Internal Affairs, 1959

Ian C. McGibbon (ed), *New Zealand and the Second World War*, Auckland: Hodder Moa Beckett, 2004

Ian C. McGibbon and Paul William Goldstone, (eds), *The Oxford Companion to New Zealand Military History*, Auckland: Oxford University Press, 2000

Alan J. Levine, *The War Against Rommel's Supply Lines, 1942-1943*, Westport, CT: Praeger, 1999

Julia Millen, *Salute to Service: a History of the Royal New Zealand Corps of Transport and its Predecessors, 1860-1996*, Wellington: Victoria University Press, 1997

W.E. Murphy, *2nd New Zealand Divisional Artillery*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1966

W. E. Murphy, *The Relief of Tobruk*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1961

William G. Pagonis and Jeffrey L. Cruikshank, *Moving Mountains: Lessons in Leadership and Logistics from the Gulf War*, Boston: Harvard Business School Press, 1992

H. Murray Reid, *The Turning Point: With the New Zealand Engineers at El Alamein*, Auckland: Collins, 1944

J.L. Scoullar, *Battle for Egypt*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1955

W.G. Stevens, *Problems of 2 NZEF*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1958

Julian Thompson, *The Lifeblood of War: Logistics in Armed Conflict*, London: Brassey's, 1994

War History Branch, *Documents Relating to New Zealand's Participation in the Second World War, 1949-45: Volume I*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1949

War History Branch, *Documents Relating to New Zealand's Participation in the Second World War 1939-45: Volume II*, Wellington: Historical Publications Branch, Department of Internal Affairs, 1951

M. S. White, ed., *Gulf Logistics: Blackadder's War*, London: Brassey's, 1995

[New Zealand Parliamentary Debates](#)

Colonel J. Hargest, 'Air Force Bill', *New Zealand Parliamentary Debates*, vol. 248, 1937